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California's Computer Magazine NOV. 1988 • 49 ★

MICROTIMES™

MAC @ WORK:

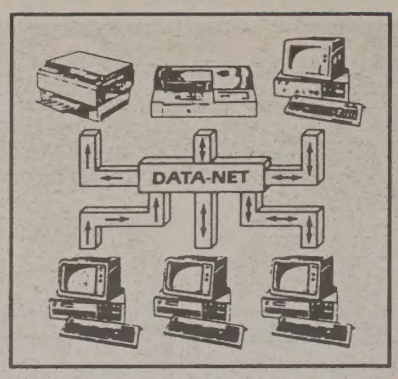
- FOXBASE+ dBASE Compatibility, Mac Flexibility

JOHN WARNOCK OF ADOBE

ADOBE And The PostScript Future

Peripheral Sharing: Make the right connections

Data Manager/Data-Net Products.



IMC products are non-intrusive and transparent to users who share peripherals such as printers and plotters. Every Data Manager product is buffered with a minimum of 256K of memory expandable to 1 Megabyte. 100% compatibility with RS-232 and Centronics interfaces. All products offer 1 year warranty.

Data Strip

NEW!

Small footprint product with RJ11 RS-232 port connections, allows 5 users to simultaneously share a single printer. Use convenient telephone twisted pair wiring to link to a unit requiring only 2″ x 8″ of desk space. DATA-STRIP automatically adjusts to X-on/X-off or DTR protocols, and requires no other switch settings or software.

Part No. DM06
Mfr. Sugg. Ret. $495
ACP Price $395

DATA-NET 1551

Each of the DATA-NET 1551 six RS-232 ports can be individually configured for either input or output functions. The unit's resident software, operator controls and bi-directional port operation make it an extremely flexible networking product.

Part No. DM15
Mfr. Sugg. Ret. $695
ACP Price $495

Data Manager Plus

Up to 5 users simultaneously share one printer or plotter. RS-232 Serial interface and connectors.

Part No. DM07
Mfr. Sugg. Ret. $595
ACP Price $450

Data Manager 4 x 4

Functionally similar to the DATA-NET 1551, the 8-Port DATA MANAGER 4 x 4 combines RS-232 Serial and Centronics parallel interfacing in a single peripheral sharing unit.

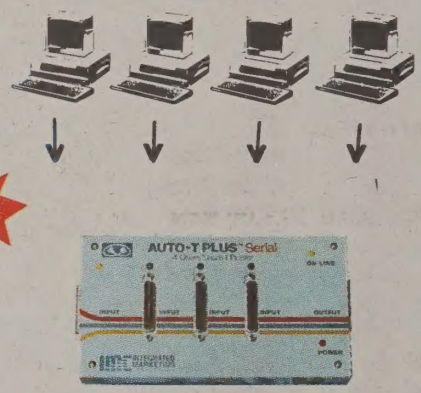
Part No. DM44
4 Serial and 4 parallel ports
Part No. DM45
6 Serial and 2 parallel ports
Part No. DM46 – 8 serial ports
Mfr. Sugg. Ret. $895
ACP Price $595

DATA MANAGER FEATURES	DATA STRIP	PLUS	1551	4X4
HARDWARE COMPATIBILITY: IBM, DEC, Apple, H-P, minis, micros	YES	YES	YES	YES
SOFTWARE COMPATIBILITY: DOS, UNIX, XENIX, others	YES	YES	YES	YES
NUMBER OF PORTS	6	6	6	8
Type of Port	Serial	Serial	Serial	Serial & Parallel
Input or Output	5 Inputs 1 Output	5 Inputs 1 Output	User Select	User Select
Cascading		YES	YES	YES
Speed of throughput: Maximum Speed	38.4K	38.4K	38.4K	19.2K
Maximum simultaneous speed	19.2K	19.2K	19.2K	19.2K
Speed selection jumpers	YES	YES	YES	YES
Bi-Directional throughput			YES	YES
BUFFERING CAPABILITIES: Dynamic Memory Allocation	YES	YES	YES	YES
256K RAM standard	YES	YES	YES	YES
MEMORY EXPANSION: User upgradeable to 1 Megabyte	YES	YES	YES	YES
RESIDENT COMMANDS & USER SELECTABLE CONTROL: End of Data Timeouts (seconds)		15 to 120	15 to 60	15 to 60
Software EDD command			YES	YES
Port Select Switch, Data PBX compatible			YES	YES
Next Available Port: Switch control			YES	YES
Software command			YES	YES
SOFTWARE COMMANDS: Collate, 1 to 99 copies			YES	YES
Lock-on			YES	YES
Data Hold			YES	YES
Cancel			YES	YES
Port Selection			YES	YES
Pause			YES	YES
APPLICATION SOFTWARE: EasyLAN (file transfer)			YES	YES
DUET (RAM resident software commands/spooling)	YES	YES	YES	YES

1. Available as: (8 Serial), (4 Serial & 4 Parallel, (6 Serial & 2 Parallel)
2. Any number of ports can be switched to 1 output. Any port, serial or parallel, can be elected as an input or an output port.

Auto-T Products

Auto-T Plus



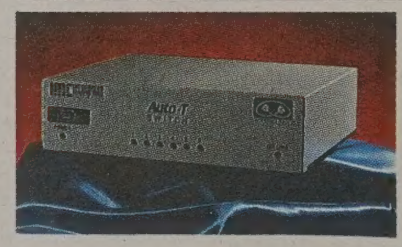
NEW!

Total automatic alternative to cumbersome manual switches for printer/plotter sharing applications. Unit continuously scans input lines and forwards data from the first computer in the queue to the printer or plotter. Four inputs (serial or parallel ports) share a printer or plotter. Includes free Softspool software for background spooling and printer control; change fonts, modes, landscape or portrait print . . . all from a simple pop-up menu. LEDs show port activity; timeout selectable from 1 sec. to 5 mins. Connect multiple units to serve as many users as you need to share expensive laser printers.

Part No. CCAT-S
5 Serial Ports
Part No. CCAT-P
5 Parallel Ports
Mfr. Sugg. Ret. $195
ACP Price $149

Auto-T Data Switch

Similar to Auto-T Plus (less software), but with 6 input ports, including both serial and parallel interfacing in the same unit.



Part No.	Input Ports	Output Ports	Mfr. Sugg. Ret.	Special Intro Price
CCAT-3	3 Ser/3 Par	1 Serial	$295	**$195**
CCAT-4	3 Ser/3 Par	1 Parallel	$295	**$249**
CCAT-5	6 Serial	1 Serial	$249	**$229**
CCAT-6	6 Parallel	1 Parallel	$249	**$169**

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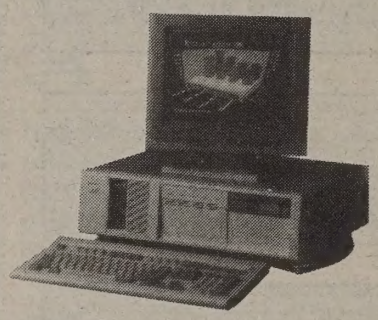

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Norton: 24.30
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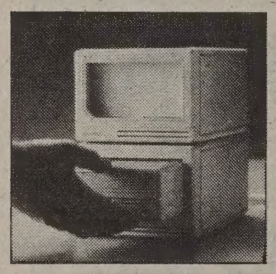

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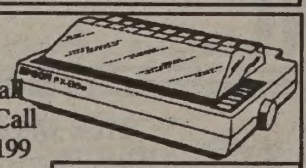

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This Vol. 5. No. 11, November 1988, Whole No. 49 MicroTimes, California's Computer Magazine, is published by BAM Publications, Inc., 5951 Canning St., Oakland, CA 94609. Phone (415) 652-3810. Los Angeles Office, 1800 N. Highland, Suite 506, Hollywood, CA 90028. Phone (213) 467-7878. San Jose Office, 36 Harold Ave., Suite 2, San Jose, CA 95117. Phone (408) 244-4400. Anaheim Office, 800 S. Brookhurst, Suite 1F, Anaheim, CA 92804. Phone (714) 776-2900. MicroTimes™ is © 1988 by BAM Publications, Inc. Subscriptions rates: 12 issues, U.S.: 3rd Class $24 (Allow 3 to 4 weeks for delivery), 1st Class $50 (Allow 1 to 2 weeks for delivery). MEXICO & CANADA: Surface Mail $40 (Allow 4 weeks for delivery). Air Mail $65 (Allow 1 week for delivery). OVERSEAS: Surface Mail $40 (Allow 6 – 10 weeks for delivery), Air Mail $160 (Allow 1 week for delivery). To receive sample issues, please send $2 ($4 for overseas) to cover postage costs. Back issues are $4 each. All rights reserved. Reproduction in whole or in part without permission of Publisher is strictly prohibited. Unsolicited material is gratefully accepted, but we can't be responsible for returning it unless it is accompanied by a stamped, self-addressed envelope. The staff and management of MicroTimes do not advocate or encourage the use of any product or service advertised herein for illegal purposes.

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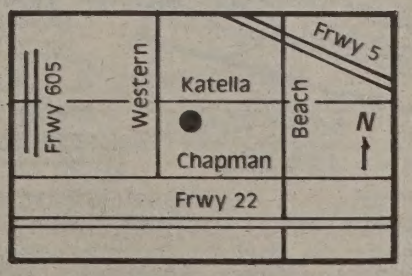

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September 30 National Samna Users Group Meeting. Atlanta, Georgia. Samna Corporation. Call: Leslie Raith, (404) 373-8042.

October 1-4 Apple Expo. Paris, France. Apple Computer France. Free booths for selected US firms. Philippe Haustete, 12, Avenue del'Oceanie, Zone d'Activites de Courtaboeuf, Boite Postale 131, 91944 Les Ulis Cedex, France.

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October 2-6 SC Japan: International Superconductor Applications Symposium And Tour. Japan. Superconductor Applications Association. Call: 1-800-854-8263.

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October 4-6 1988 And Beyond: Bus and System Solutions Convention. Javits Convention Center, New York City. BUSCON (714) 669-9105.

October 4-7 Introduction To Datacomm & Networks Course. Los Angeles. Integrated Computer Systems. Call: 1-800-421-8166.

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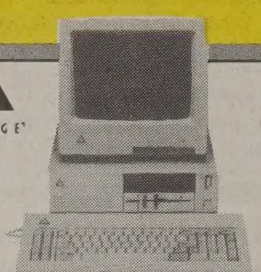

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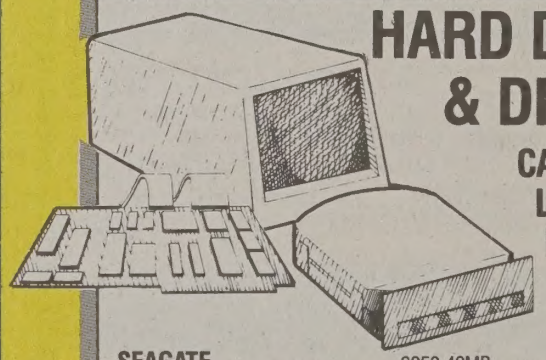

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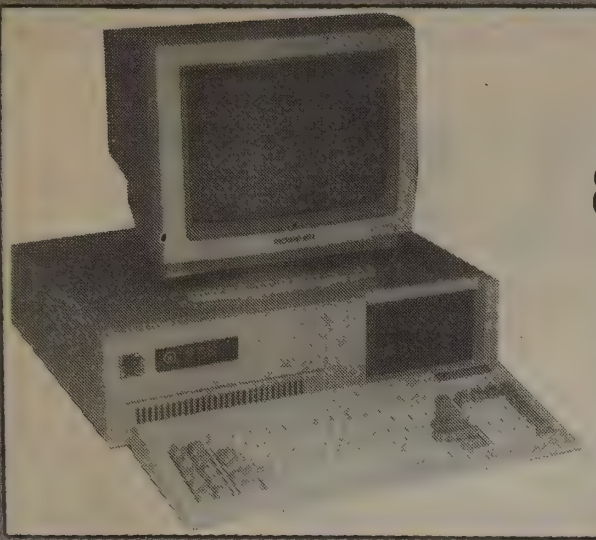

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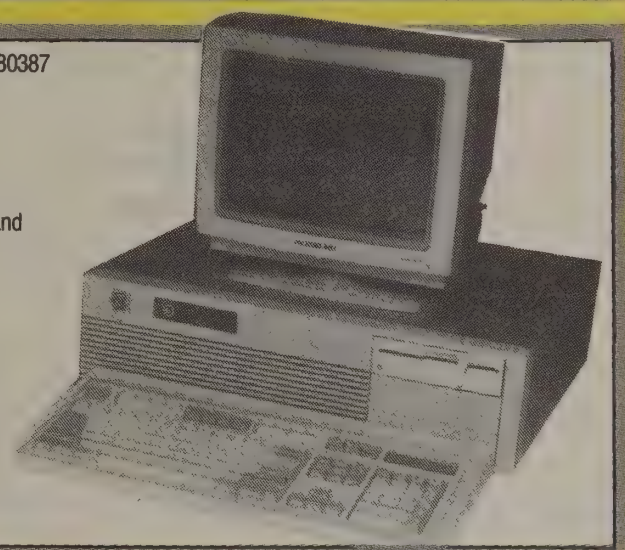

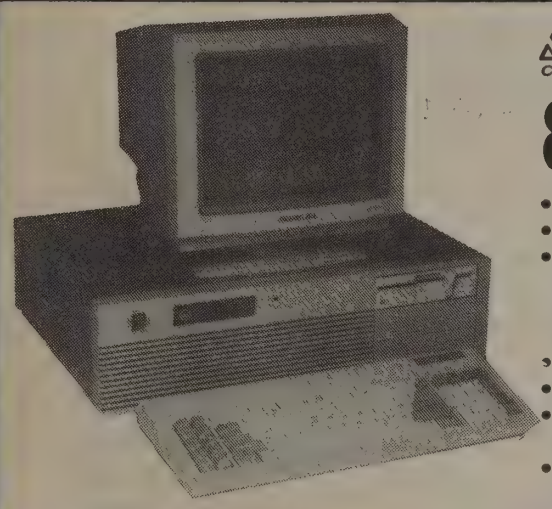

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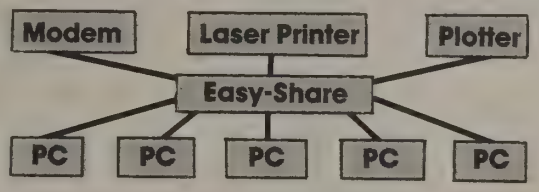

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Seagate ST238 30 MB w/ controller. 285
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ference. Novotel Hotel, Amsterdam, Holland. CAP International. Call: Martha Johnson, (617) 982-9500.

October 21-22 1988 Fall Cue Conference. San Jose. Computer Using Educators. Call: EITHER, (818) 355-8807.

October 22 Computer Show. National Orange Show Grounds, San Bernardino. East West Computer Shows. Call: (415) 388-8893.

October 22 Shop Till Ya Drop Computer Swap. Alameda County Fairgrounds. Microshows. Call: 1-800-433-7469.

October 24-25 Electronic Messaging Conference. Boston. Michael F. Cavanagh, The Electronic Mail Association, (202) 293-7808.

October 25-28 Troubleshooting Datacomm & Networks: Hands-on Workshop. San Diego. Integrated Computer Systems, 1-800-421-8166.

October 25-28 Integrated Voice/Data Communications & ISDN Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

October 25-28 Software Project Management Tools & Techniques Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

October 25-27 Scientific Computing & Automation Conference And Exposition. Philadelphia Civic Center. Scientific Computing & Automation magazine. Don Wiese, (201) 361-9060.

October 25-28 Introduction To Datacomm & Networks Course. San Diego. Integrated Computer Systems. Call: 1-800-421-8166.

October 25-28 C Programming: Hands-on Workshop. Los Angeles. Integrated Computer Systems. Call: 1-800-421-8166.

October 26 Focus 4GL/DBMS Seminars. Orange County. Information Builders, Inc. Call: (212) 736-0842

October 26-28 Ion Deposition Printing Conference. Novotel Hotel, Amsterdam, Holland. CAP International. Call: (617) 982-9500.

October 30-November 2 "From Vision To Payoff: Breakthroughs To Growth," IIA's 20th Annual Convention And Exhibition. Omni-Shoreham, Washington, DC. Information Industry Association. Call: Michael Atkin, (202) 639-8262.

November 1-4 Image Processing & Machine Vision Course. San Francisco. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

November 1-4 Software User Interfaces: Design Principles & Techniques Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

November 1-4 Project Management: Planning, Scheduling, Tracking & Controlling Course. San Diego. Integrated Computer Systems, 1-800-421-8166.

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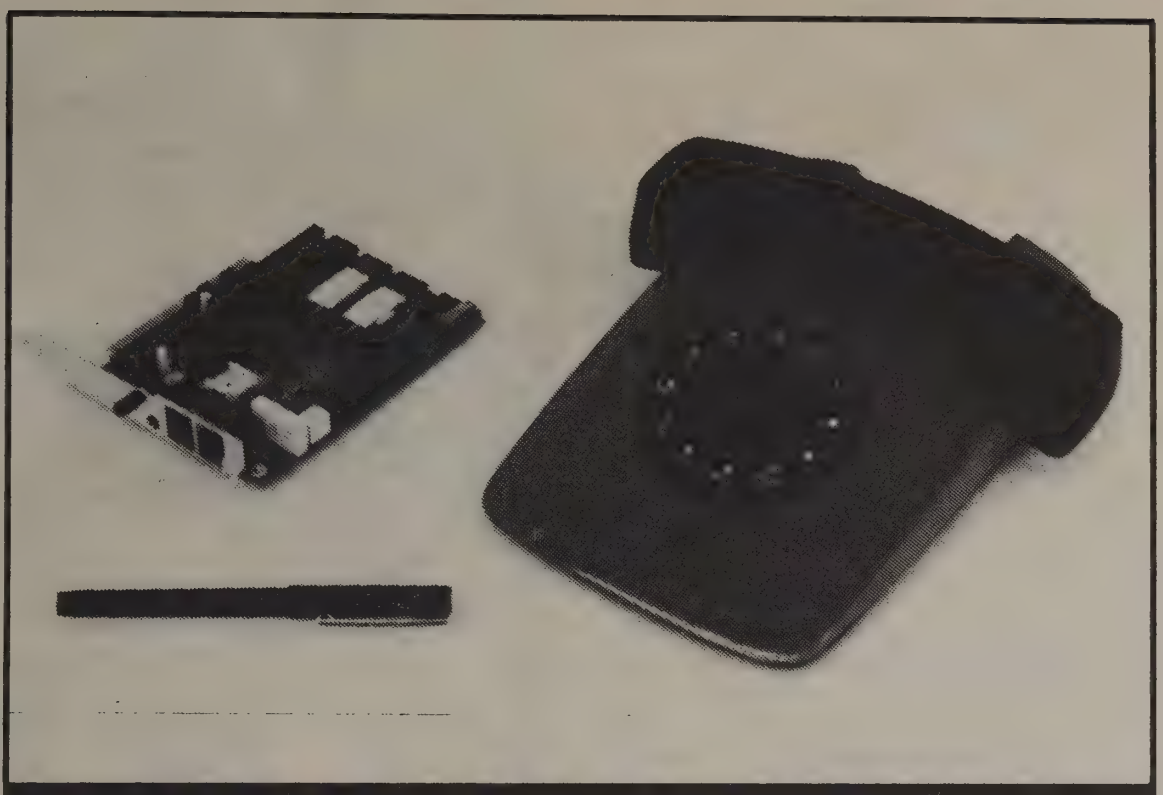

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CALENDAR OF EVENTS *continued*

November 1-4 16 & 32 Bit Microprocessor System Design Course. San Diego. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

November 1-2 Timeslips III Seminars. San Diego. Mentor Technologies. Call: 1-800-227-5502

November 1-4 Microprocessor Software, Hardware & Interfacing: Hands-on Introduction Course. San Francisco. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

November 2-4 LOCALNET 88: The LAN Industry Show & Conference. Hynes Convention Center, Boston. Conference Management Corporation. (203) 852-0500 for information.

November 5 Shop Till Ya Drop Computer Swap. Alameda County Fairgrounds. Microshows. Call: 1-800-433-7469.

November 5 Computer Show. Ventura Fairgrounds, Ventura. East West Computer Shows. Call: (415) 388-8893.

November 7-8 Timeslips III Seminars. Los Angeles. Mentor Technologies. Call: 1-800-227-5502

November 12 Computer Swap Meet. LA County Fairgrounds, Pomona. RK Productions, 1-800-722-7927.

November 14-15 Algor Products Training Seminar Fundamentals. Los Angeles. Algor Products at (412) 661-2100 for information and registration.

November 14-18 COMDEX/Fall Conference And Exposition. Las Vegas. The Interface Group, Inc. Call: Walter D. Heithaus, (617) 449-6600.

November 14-16 Strategies For Implementing Distributed Processing. Ramada Renaissance Hotel, Washington D.C. International Data Corporation. Call: Marji Grubic, (703) 893-0833.

November 15-18 Computer Network Management & Control Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

November 15-18 Local Area Networks: Implementation & Configuration Course. San Francisco. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166

November 16 Algor Products Training Seminar Intermediate. Los Angeles. Algor Products at (412) 661-2100 for information and registration or write Algor Interactive Systems, Inc., Essex House L5, Essex Square, Pittsburgh, PA 15206.

November 16-18 Western Educational Computer Conference. San Diego Princess Resort, San Diego. California Educational Computing Consortium. Call: Hal Roach, Call: Hal Roach, 594-5611, Ext. 365.

November 16-18 Practical Knowledge Engineering: A 3-Day AI And Expert Systems Seminar. Los Angeles. Technology Transfer Institute. Call: (213) 394-8305.

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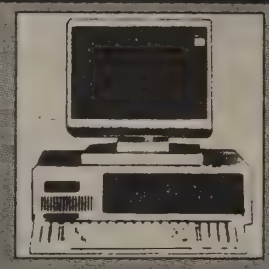

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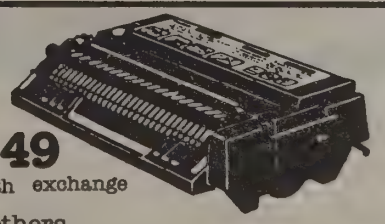

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CALENDAR OF EVENTS *continued*

November 17-18 Twelfth Annual Western Educational Computing Conference. San Diego Princess (formerly Vacation Village). California Educational Computing Consortium. Dr. Jack W. Pope, (619) 260-4810.

November 17-18 Algor Products Training Seminar Advanced. Los Angeles. Algor Products at (412) 661-2100 for information and registration.

November 18-19 1988 Real-Time Programming Convention (FIG). Anaheim, CA. Forth Interest Group. Call: Kent Safford, (408) 277-0668.

November 19 Computer Swap Meet. San Diego County Fairgrounds, Del Mar. RK Productions, 1-800-722-7927.

November 21 Focus 4GL/DBMS Seminars. Los Angeles. Information Builders, Inc. Call: (212) 736-0842

November 26 Computer Show. Glendale Civic Auditorium. East West Computer Shows. Call: (415) 388-8893.

November 29 Integrated Voice/Data Communications & ISDN Course. San Diego. Integrated Computer Systems, 1-800-421-8166.

November 29-December 2 Troubleshooting Datacomm & Networks: Hands-on Workshop. Los Angeles. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

November 29-December 2 Local Area Networks: Implementation & Configuration Course. Los Angeles. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

November 29 Focus 4GL/DBMS Seminars. San Fernando Valley. Information Builders, Inc. Call: (212) 736-0842.

November 29-December 2 OSI Product Integration Conference. McLean Hilton, McLean, Virginia. Advanced Computing Environments. Call: Wendy C. Gibson, (415) 941-3399.

November 30-December 2 Software Requirements & Design Specifications Course. San Diego. Integrated Computer Systems, 1-800-421-8166.

November 30-December 2 PC Networking: Hands-on Workshop. Los Angeles. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

December 1 Focus 4GL/DBMS Seminars. Los Angeles. Information Builders, Inc. Call: (212) 736-0842

December 3 Computer Swap Meet. LA County Fairgrounds, Pomona. RK Productions, 1-800-722-7927.

December 3-4 Conference And Exposition of MIDI Music. Sheraton Centre, New York. Tony Scalisi, (203) 259-5734.

December 3 Los Angeles Amiga Users Group Christmas Wish List Show. Culver City. Call: President Rick Smith, (818) 893-5022.

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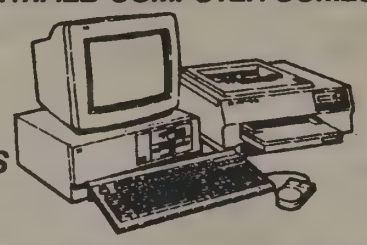

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CALENDAR OF EVENTS *continued*

December 5-7 National Database & 4th/5th Generation Language Symposium. Boston. Digital Consulting, Inc. Call: (508) 470-3880 for registration.

December 6-9. Effective Skills For Technical Managers Course. San Diego. Integrated Computer Systems. Call: 1-800-421-8166.

December 10 Computer Show. San Diego Scottish Rite Center. East West Computer Shows. Call: (415) 388-8893.

December 13-14 Timeslips III Seminars. Los Angeles. Mentor Technologies. Call: 1-800-227-5502

December 14 Focus 4GL/DBMS Seminars. Los Angeles. Information Builders, Inc. Call: (212) 736-0842

December 17 Computer Swap Meet. Long Beach Convention Center. RK Productions, 1-800-722-7927.

December 17 Computer Show. National Orange Show Grounds, San Bernardino. East West Computer Shows. Call: (415) 388-8893.

December 19-20 Timeslips III Seminars. San Diego. Mentor Technologies. Call: 1-800-227-5502

January 11-13 SC Global '89. San Francisco. Superconductor Applications Association. Call: (714) 586-8727.

January 18-20 PC Networking: Hands-on Workshop. San Diego. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

January 31-February 3 Map/Top: Technical Introduction & Implementation Course. Los Angeles. Integrated Computer Systems. Call: 1-800-421-8166.

January 31-February 3 Microprocessor Software, Hardware & Interfacing: Hands-on Introduction Course. San Francisco. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

February 1-2 Timeslips III Seminars. Los Angeles. Mentor Technologies. Call: 1-800-227-5502

February 5-7 SAFECON-Software And Firmware CONference. San Jose. MultiDynamics, Inc. Call: Anne Weber, (714) 669-1201.

February 7-10 16 & 32 Bit Microprocessor System Design Course. Los Angeles. Integrated Computer Systems. Call: 1-800-421-8166.

February 7-10 C Programming: Hands-on Workshop. Los Angeles. Integrated Computer Systems. Call: 1-800-421-8166.

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*As a community service, **MicroTimes** lists trade shows, seminars, and other special events in the Calendar of Events free of charge on a space-available basis. To improve the likelihood of your listing's timely inclusion, please make sure we have the necessary information no later than the first of the month two months before the cover date of the issue in which you'd like it to appear (i.e. the deadline for the March issue, on the street in February is January 1). Send to: MicroTimes Calendar of Events, 5951 Canning St., Oaklands, CA 94609.*

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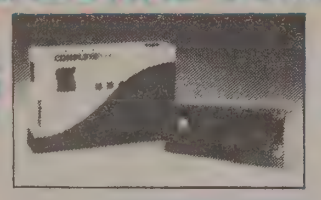

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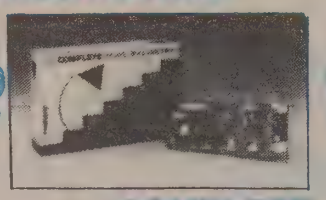

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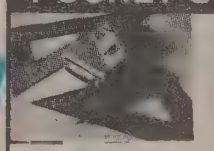

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NEWS
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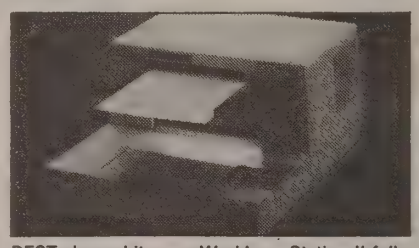

DEST showed its new WorkLess Station II full-feature scanner at the Seybold Desktop Publishing Show. Story begins on page 22.

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Paul Hoffman is an industry analyst who has been covering microcomputer technology for ten years. He can be reached on USENET (phoffman@well) and MCI Mail (264-3171). He also writes popular microcomputer books.

No Big Surprise:

Apple Releases High-End Macintosh II and Mid-Range Apple IIC

Fairly recently, Apple CEO John Sculley said Apple would not announce any new computers this year; he was wrong. In fact, Apple announced two new computers within one week. The Mac IIx is essentially a Mac II with a 68030 CPU and 68882 floating-point processor. It is of most interest to people running Apple's version of UNIX, A/UX. The Apple IIC Plus has an internal 800K 3.5" floppy disk drive, giving it much more storage space than the old model. In addition, the new computer's 65C02 CPU can run programs up to three times faster than the old model.

In explaining the turnaround from his earlier promise of no new computers, Sculley said simply, "I was wrong." Apple's announcements were prompted both by an imminent announcement by NeXT of a new academic computer and by the rapidly-increasing sales of MS-DOS machines into the home market. Neither announcement involved major changes in Apple's product line. The Mac IIx is only 10-15% faster than the current Mac II, although for numeric-intensive calculations it can be up to twice as fast. The IIC Plus is a more convenient version of the older computer; one of its biggest changes is the internal power supply and area for an internal modem.

Both computers have new disk media. The Mac IIx has Apple's new Floppy Disk High Density (FDHD) which holds 1.4 megabytes and can read 3.5" MS-DOS floppies without special commands. The IIC Plus' disk drive answers one of the biggest problems with the old IIC, namely that very little data could be stored on a floppy.

Apple Raises Prices

In a move that has caused screams of anguish from users and corporations, Apple raised the price on most of its computers and some of its popular peripherals. Apple justified the price raise on two counts: higher-priced RAM and high demand. Although no one can dispute that RAM has increased the cost of computers to many manufacturers, the "increased demand" argument raised quite a few hackles in the user community. In essence, Apple claims that since its computers are so popular, it can get away with raising the price without forsaking too many sales. Although this indicates that Apple is feeling more confident about sales than it has in the last few years, it certainly makes it harder for the average user to afford an Apple computer, especially compared to IBM clones whose prices have remained fairly steady in the last year.

The prices of the Mac Plus and Apple IIe were not raised, however. Apple also raised the prices on many peripherals such as floppy disk drives, monitors and LaserWriter memory. The price increases

APPLE'S NEW SUGGESTED RETAIL PRICES ARE:

System	New Price	Old Price	Increase
Mac SE, 1 MB RAM	$3169	$2769	14%
Mac SE, 20 MB hard disk	3769	3569	6%
Mac II	4869	3769	29%
Mac II 1 MB RAM, 40 MB hard disk	6169	5369	15%
Mac II 4 MB RAM, 40 MB hard disk	8069	7269	11%
Apple IIGS	1149	999	15%
LaserWriter IINT	4999	4599	9%
LaserWriter IINTX	6999	6599	6%

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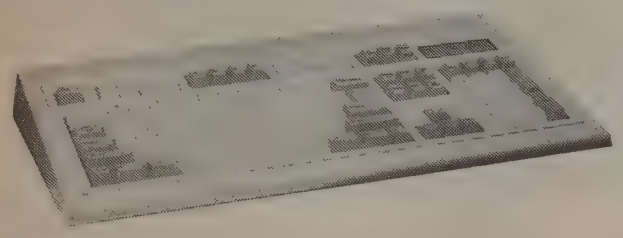
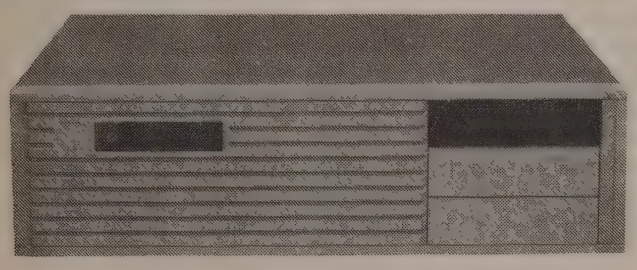


BTC offers exceptional value in their 84-Key Keyboards and their 101-Key Enhanced Keyboards for IBM PC/XT and AT compatibles.

AT Cases

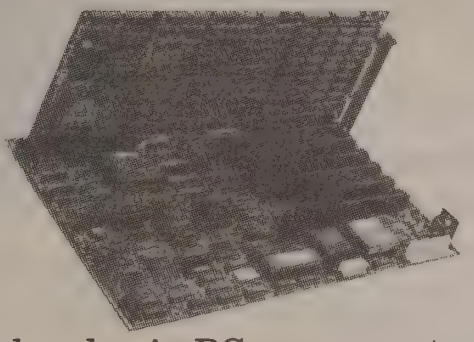


The BTC AT case has a scratch-resistant, baked enamel finish that is smooth, tight and laser straight.

Monochrome Monitors

BTC introduces the T-1418 flat screen, high resolution monochrome monitors for IBM PC and compatible computers. The T-1418 provides sharp imaging with a 14" diagonal non-glare screen that delivers 40% greater display capability and 1000 x 900 resolution. Available in paper white or amber phosphors.

Motherboards



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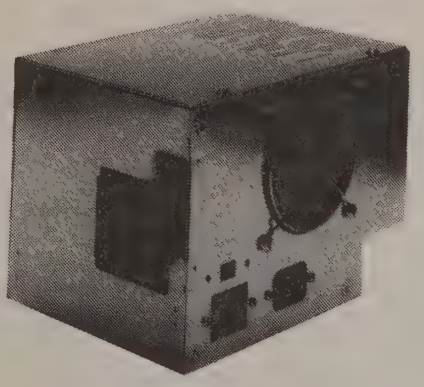

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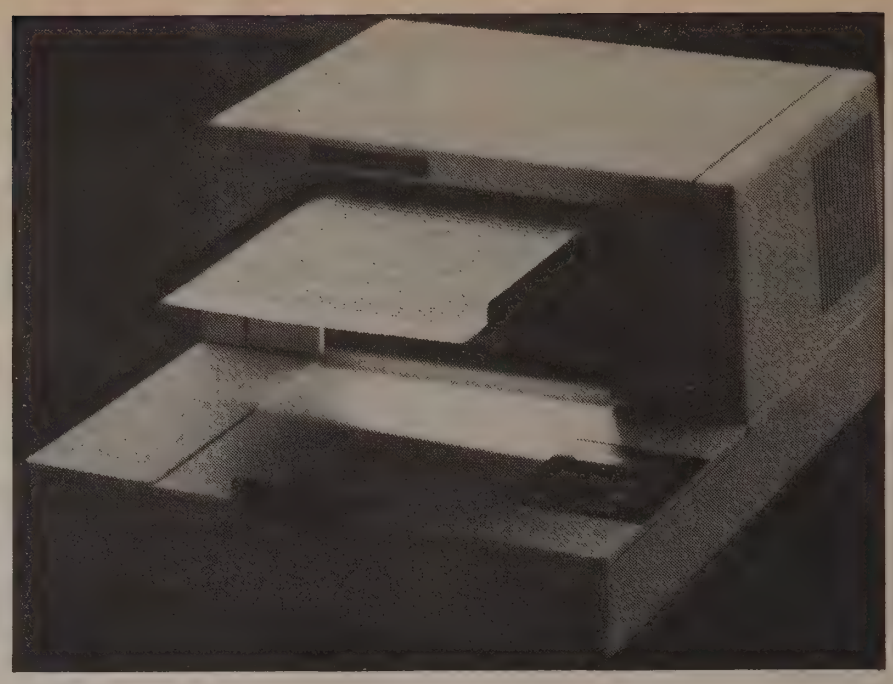
NEWS AND ANALYSIS



DEST's WorkLess Station II is a departmental scanner featuring text recognition, 256 level grey scale scanning capability and custom interfaces to support minicomputers, dedicated word processors and personal computers.

are effective immediately, and many people expect Apple to reduce the prices to their current levels within six months if the RAM shortage eases and chip prices drop.

Seybold Desktop Publishing Conference Brings Out Announcements of New Products In Many Areas

Manufacturers of desktop publishing hardware and software gathered for the rapidly-growing Seybold Desktop Publishing Conference in Santa Clara recently to discuss the future of desktop publishing and to introduce new products. The mood at the show was very optimistic, not necessarily because of any major breakthroughs in new technology, but due to an increased awareness on the public's part of desktop publishing.

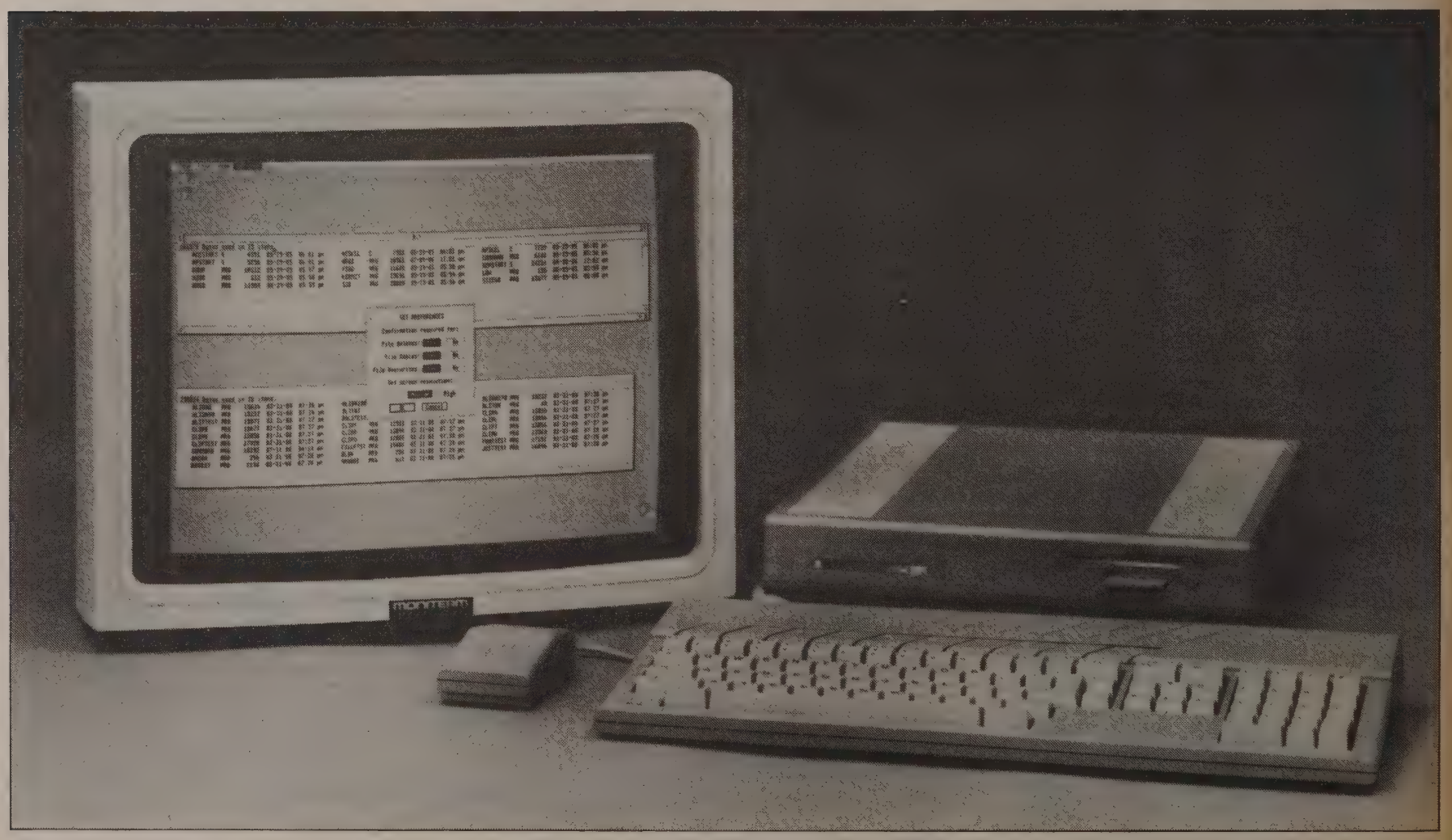
Both Apple and IBM had very large booths at the show, mostly showing their hardware running with other companies' software. Clearly, the attractiveness of the desktop publishing field that Apple started three years ago in an advertising campaign has not diminished for hardware manufacturers. Many minicomputer manufacturers, such as Sun and Intergraph, were also showing their hardware. Atari surprised many people by showing many new desktop publishing applications and the large-screen displays that are popular for desktop publishing.

The seminars at the conference showed that desktop publishing has given computer owners much more power to create finished products in their offices, but has not helped them design good-looking output. Most seminar discussions were about technology and user experiences, leaving many beginners wondering about the basics of design.

On the exhibition floor, companies touted products from the many corners of the desktop publishing market. Most Macintosh manufacturers had made their new product announcements a month before at Macworld Exposition in Boston, although some had saved their announcements for Seybold in order to get more publicity in a less-crowded environment. Many popular Macintosh products were being shown running under Microsoft *Windows* on PC ATs for the first time.

• Calera Recognition Systems (formerly Palantir) introduced their TrueScan scanner recognition card for the IBM PC AT and compatibles. TrueScan works with most desktop scanners to allow them to read text from scanned images.

• Brøderbund leapt into the desktop publishing market with three new low-cost packages for the Macintosh. The packages cover a wide area of Macintosh use, including PostScript fonts, drawing and design. *TypeStyler* allows you to easily change the look of both PostScript and non-PostScript fonts for special effects; it costs $150. *Drawing Table* completes in the already-crowded color paint and



The Viking 1 19-inch Monochrome Monitor for the Atari Mega

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As users we all want the highest possible memory capacity, but the question is "What is the best way to achieve it?"

As manufacturers we at BINARY could easily build large amounts of RAM directly onto our mother boards and while that may be alright for now, the ever changing standards in this industry mean that both you and we could regret that choice in the not too distant future.

Again, as users we all want the newest possible display card in our computer, namely, super Hi-Res., VGA ... etc.

Unfortunately, as manufacturers we cannot use just any newly released cards because even the very top rated brand name cards may not run at "0" wait state on fast machines.

It takes Knowledge and Honesty to fullfil your computation needs while at the same time protecting your investment. Those who bought BINARY's computers and referred their friends to us agree on one thing: The low price is certainly appealing, yet the "Right Configuration" is what keep their satisfaction lasting.

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640 KB Ram
Serial/parallel port
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20 MB Hard Disk

$1350

Binary - 12 mhz

EGA monitor
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80286 CPU
1 MB Ram
Serial/parallel port
1.2 MB Floppy Drive
1.44 MB 3 1/2" Drive
Enhanced Keyboard
40 MB Hard Disk (28ms)

$2049

Binary - 386/20

EGA monitor
EGA card
80386 CPU
1 MB Ram
Serial/parallel port
1.2 MB Floppy Drive
360 K Floppy Drive
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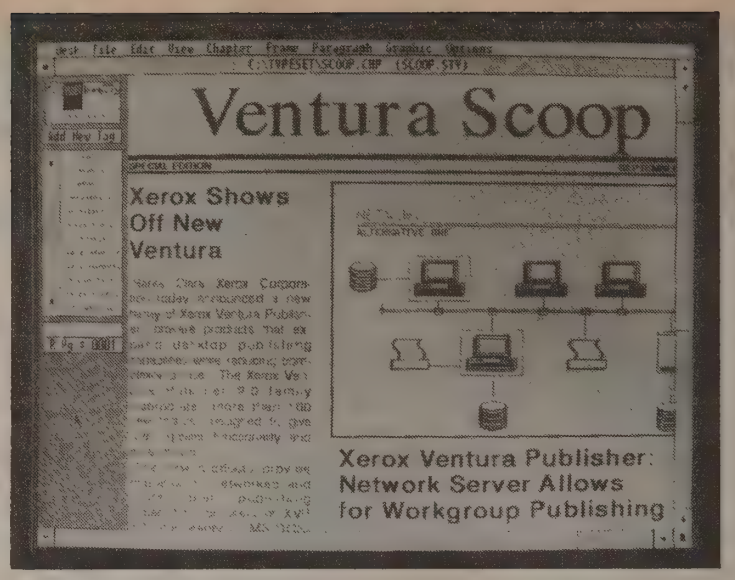
NEWS AND ANALYSIS



Xerox's version 2 of its popular *Ventura Publisher* package offers spot color support, selectable user interface and text rotation.

drawing markets, but costs only $130. *DTP Advisor* is a *HyperCard* stack that gives advice on design and layout as well as helping coordinate and estimate publishing projects; it costs $80.

• Xerox introduced version 2 of its popular *Ventura Publisher* package. The new version has support for spot color, selectable user interface and text rotation. *Ventura Publisher Professional Edition* has many more advanced features, such as table handling and vertical page justification. Xerox also introduced a network version of the software.

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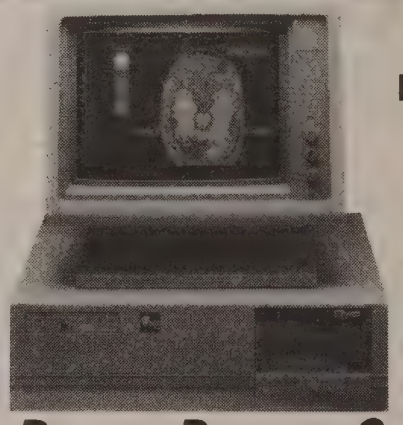

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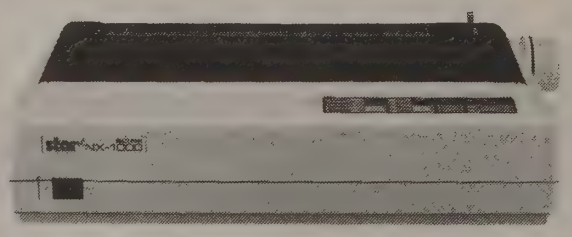

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• Quark introduced *QuarkStyle*, an inexpensive version of their popular *QuarkXpress* desktop publishing program for the Macintosh. *QuarkStyle* has almost all of *QuarkXpress*' features except the ability to create new design templates; however, the package comes with 76 already-designed templates, and templates can be imported from *QuarkXpress*. *QuarkStyle* is also a full-featured word processor, and can read documents from major word processing software on the Mac. *QuarkXpress*, at $795, has become a popular alternative to industry leaders Aldus' *PageMaker* and Letraset's *Ready, Set, Go!*, and Quark is hoping that the only slightly less powerful *QuarkStyle* at $295 will help it gain market share. In large companies with only one designer, most users would buy *QuarkStyle* while the designer would use *QuarkXpress*, according to the company.

• Moniterm released their 19-inch monitors for the Atari Mega systems. The Viking for Atari is the same monitor already available for the Macintosh and IBM PCs, but with special interface circuitry and software for the Atari. It is the first 19-inch monitor available for Atari computers, according to both Moniterm and Atari. It costs $1995, the same as for the Macintosh and IBM PC. Moniterm also showed its new 24-inch monitor, which is large enough to display a full tabloid page at actual size.

• Compugraphic, one of the leaders in the traditional typesetting world, announced that future Compugraphic imagesetters will use the PostScript page description language. In conjunction with this, Compugraphic introduced upgrades to their popular imagesetter, the 9400PS, which makes them immediately accessible from computers sending PostScript codes. The also introduced a 400 dots-per-inch fast laser printer and two scanners, both manufactured by Agfa, and new PostScript typefaces for the Macintosh.

• Digital Composition Systems showed *dbPublisher*, the first package to integrate desktop publishing and information from databases and spreadsheets. The package is used by companies who publish documents which are based on data from other programs, such as *dBASE III* or *1-2-3*. For instance, a company that updates it price list could use *dbPublisher* to pull the price information directly out of a database. With the $695 package, you can do standard desktop publishing for the text and layout of the document and automatically incorpo-

NEWS AND ANALYSIS

rate and format the data from the native data files.

• Caere, who made a big splash at MacWorld Expo with their *OmniPage* scanner software for the Macintosh, announced the same software for the PC running under Microsoft *Windows*. The *Windows* software comes with an add-in card for the PC which contains a 68020 CPU and two megabytes of RAM. *OmniPage* can run in the background while other tasks are performed on the PC. Hewlett-Packard also announced that anyone who buys an H-P ScanJet printer and Caere's *OmniPage* before December 31 will get a free document feeder for the scanner; the document feeder normally costs $595.

• Sun Microsystems purchased Folio, Inc., a producer of font and imaging technology. Sun will use Folio's technology to further their entry into the high end of desktop publishing. Folio's *TypeMaker* and *TypeScaler* will be integrated into many of Sun's device-independent products to make it easier for other manufacturers to attach their equipment to Sun computers.

• On the more technical end of things, Emerald City Software showed its *Lasertalk* package running under Microsoft *Windows*. *Lasertalk* helps programmers working with PostScript to debug the PostScript part of their programs and to watch how the image is created in the printer.

• Varityper introduced PostScript-compatible versions of their 4200 and 4300 imagesetters. The 4200P prints 1200 dots per inch, while the 4300P prints 2400 dots per inch. Varityper also announced that current 4200 and 4300 owners could upgrade to the PostScript versions.

• Advanced Vision Research announced *SoftScrybe*, an MS-DOS program that processes PostScript code in the PC and prints it on non-PostScript laser printers. The program uses the AVR TIGer accelerator board to control the laser printer. The program comes with 35 fonts and costs $575. AVR also announced an EMS-compatible version of their TIGer card and a stack feeder for their scanner.

• Personal TEX Inc. showed *PTI View*, a program for previewing documents formatted with TEX on the screen before printing. *PTI View* works with documents that use either Bitstream fonts or Metafont fonts and displays on a Hercules, CGA or EGA monitor.

• Adobe, the creator of PostScript, announced the Microsoft W*indows* version of *Adobe Illustrator*, the Font Folio for owners of the Apple LaserWriter II NTX, and new and revised PostScript fonts. The *Windows* version of *Illustrator* has almost all the features of the Macintosh version, although a few were left out due to *Windows* memory limitations. *Illustrator* works closely with PostScript printers to produce high-quality pictures. *Illustrator* will retail for $695. Font Folio is a hard disk containing the entire catalog of Adobe fonts for the Mac. The hard disk attaches directly to the hard disk port of the Apple LaserWriter II NTX, giving the printer direct access to over 300 PostScript typefaces. The drive costs $9600. Adobe also created new versions of all their PC fonts with new features such as downloading from the parallel port and higher-speed serial downloading. Upgrades cost $40 for the first font and $20 for each additional font.

• Cricket Software opened its Cricket Expression device drivers to all Macintosh applications. This allows hardware manufacturers who use the device drivers to work with many more programs. Cricket also released device drivers for many new color printers and plotters from Calcomp, Seiko and Sharp. In addition to the drivers, Cricket showed an updated version of *Cricket Presents*, its desktop presentation software for the Macintosh.

• DEST showed its new WorkLess Station II, a full-featured scanner with character-recognition and image processing software built into the system. The system comes with a 75-page sheet feeder and can send the scanned information out to a wide variety of computers.

• Olduvai released a Microsoft *Windows* version of *Read-It!*, their character recognition software that works with scanners.

• E-Machines introduced a 21-inch display for the Macintosh SE.

Fujitsu Begins Manufacturing Scarce One-Megabit DRAM In San Diego

Attempting to help alleviate the RAM shortage and avoid tariffs, Fujitsu began producing one-megabit

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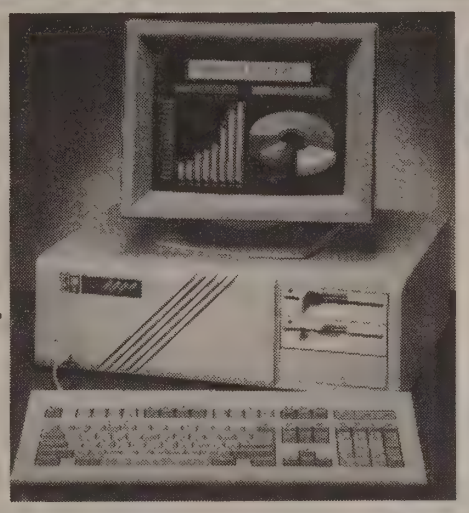

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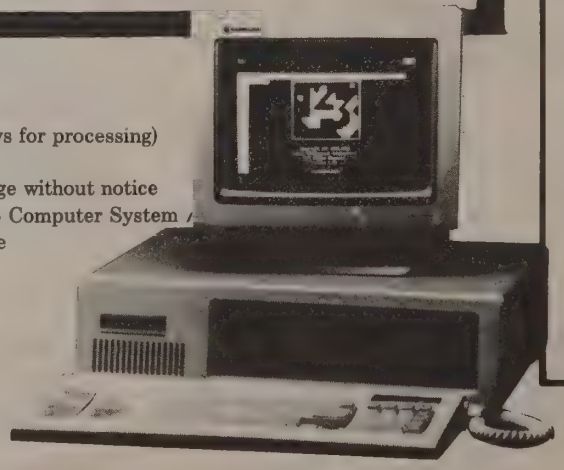

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NEWS AND ANALYSIS

DRAM chips in its San Diego plant last month. The plant, which also produces other chips, will help Fujitsu keep its clients stocked with DRAM and hopefully lower the price of the chips. Fujitsu recently was prevented from buying chip maker Fairchild, making it much harder for it to start US chip production.

PC Clone Makers Agree On New Bus Standard

All the major clone makers agreed to compete with IBM's Micro Channel Architecture (MCA) bus by building computers in the future to a new standard. The Extended Industry System Architecture (EISA) allows 32-bit computers, such as PC clones with 80386 CPUs, to run at high rates and to have many CPU cards interacting with the bus. The EISA standard has most of the features of IBM's MCA, but also accepts older cards designed for the IBM PC and AT. The announcement was only for the formation of the standards group, however; the standard will not be complete for many months and the first shipment of computers which adhere to the standard will probably not be seen for over a year.

Many companies have felt that IBM was vulnerable with its incompatible bus, but wanted to achieve the higher speed of a 32-bit data path and other advanced bus features. Although some manufacturers had designed (and in some cases marketed) computers with better buses, none had been accepted as a standard. The EISA was pushed most strongly by Compaq, the leader behind IBM in sales of PCs. Others who supported the standard at the announcement include Epson, Hewlett-Packard, NEC, AST and Tandy. Over three dozen other clone makers promised to support the standard. The new standard was also supported by many other companies such as Microsoft and Novell.

The EISA design team has had plenty of time to mimic the best features of IBM's MCA, and have chosen the most useful ones for EISA. According to Compaq, the new bus can be up to 50% faster than MCA if cards are well designed. AT cards on the bus will react at about the same speeds as they currently do. The EISA design is based primarily on work done at AST and Compaq. The design is nearly complete and chip companies such as Intel, NEC, Chips & Technologies and Western Digital are starting to create chips to support the bus.

The EISA announcement should keep the PC and AT bus structures alive for at least another few years until the majority of systems in the workplace have either EISA or MCA buses. Although IBM is claiming that it is very successful at getting the MCA bus accepted, corporate users disagree; many are buying non-IBM computers for the first time due to their heavy investment in peripheral cards. As the 80386 (and the future 80486) CPUs become more popular, the MCA- and EISA-based computers will become more of a standard due to their better ability to pass data rapidly along the bus. Clearly, IBM will not abandon the MCA bus, and the EISA bus should give it a great deal of competition when the computers become ready a year from now.

IBM Introduces New AT-Style Model, Ships Third Million PS/2

On the same day that its competitors announced the EISA, IBM came out with a new computer that does not use the MCA bus that it touts so highly. IBM's PS/2 Model 30 286 has an 80286 CPU, and has more capacity of on-board RAM. It is virtually identical to the MCA-based Model 50 except for the bus. The hard-disk based version also has a faster disk and better caching than the old Model 30. The computer is about 50% faster than the old Model 30, and helps bring up the low end of the PS/2 line. The retail price of the new system is $1995 without the 20 Mb hard disk and $2595 with the hard disk.

At the same time, IBM announced that it had sold three million PS/2 systems, approximately half of them with MCA buses. It also announced three new small mainframe models in the 9370 line: Model 20, Model 50 and Model 80. The 9370 line has had a slow start in sales but is becoming more popular as department-level computers for companies with many of the larger System/370 computers.

Borland Introduces New Debugger and Assembler

Keeping the heat on Microsoft in the languages market, Borland recently introduced its new *Turbo Assembler And Debugger* package which gives programmers better access to the innards of their programs. The tool also lets them assemble machine language much faster than Microsoft's Assembler program, according to Borland. The debugger is mostly meant for professional programmers, although intermediate users will also find it useful

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since it lets you look at your data as you debug your program.

Microsoft Programmers Get Entire Reference Collection On CD-ROM

Most programmers have bookshelves crammed with language manuals, operating system guides and assorted other books for programming. Microsoft has just released a single CD-ROM disk that may eliminate almost all of those for people who program using Microsoft languages or operating systems. The Microsoft Programmer's Library contains all of the manuals for Microsoft's languages and operating systems, and also includes many Microsoft Press books as well. There are also over seven megabytes of sample program code.

The disk is extensively cross-referenced, so you can quickly find information on a subject in many different manuals. The information can easily be scanned and dropped into most editors for incorporation in programs or for printing. The CD-ROM search engine has advanced features such as bookmarks and cross-references.

The complete library, which costs $395 until the end of this year, will be updated next year with additional information on OS/2 Presentation Manager as well as new source code. The first version contains all of the manuals for MS-DOS, *Windows*, OS/2, MASM, C, Pascal, FORTRAN, BASIC, CodeView, and Microsoft hardware. The Microsoft Press books include the complete *MS-DOS Encyclopedia*, *Inside OS/2*, *Advanced MS-DOS* and *Programmer's Guide to PC & PS/2 Video Systems*. There is also sample code from the *Microsoft Systems Journal*. The library will be accessible over a network.

At the same time, Microsoft says that future updates of many of its programming languages would be distributed on CD-ROM in addition to floppy disks. Microsoft's language updates, which usually take up many floppies, are usually accompanied by large documentation replacements, so the CD-ROM update would make it easier for some people to perform the updates in a single step.

Texas Instruments And Cypress Back SPARC

Sun's SPARC reduced instruction set computer (RISC) chip got a large boost towards becoming a standard when Texas Instruments announced that it would design and manufacture its own version of SPARC, as well as use it in its future computers. TI said that it would port its artificial intelligence platforms to the SPARC architecture under UNIX as well as use it in other areas where it is strong, such as CAD/CAM.

TI also said that it had reached an agreement with Cypress to second-source the Cypress 7C601 SPARC chip. Cypress needed a strong partner so that it could convince computer manufacturers to commit to the chip in quantity. TI will thus be making its own versions of SPARC as will other vendors. Sun is banking on others to join it in the SPARC systems market in order to establish it as a standard.

Gould Electronics: Going, Going, Gone

First Gould sold its semiconductor division to its competitor, California Micro Devices, for $70 million. Then it sold its Ocean Systems division to aerospace giant Martin Marietta for $117 million. One day later, Gould was acquired by Nippon Mining of Japan for $1.1 billion. Although it is being discussed here as a merger, the Japanese press has covered it as buyout. Gould has been shedding its divisions over the past few years in anticipation of an acquisition, but the purchase by a Japanese giant took many people by surprise.

Wall Street Journal Excoriates Lotus, Manzi

Most computer companies dream of appearing on the front page of the *Wall Street Journal*. Lotus isn't so excited these days. In an unprecedented front-page denouncement of a software company, an article titled "After Years of Glory, Lotus Is Stumbling In Software Market" berated Lotus and especially president Jim Manzi for blowing its lead in the software market. The article says that Manzi "lucked into" Lotus and was unable to keep control after founder Mitch Kapor left. Commenting on the lateness of version 3 of *Lotus 1-2-3*, the article says, "But if it misses that deadline [late this year] by much, or if the product doesn't live up to its promise, Lotus may become just one more former highflyer in the high-tech game." The severely negative tone of the article stood out from the *Journal*'s usual style of only saying good about large companies.

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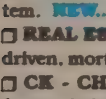

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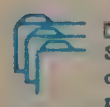
❒ **QMODEM V3.1 (293 & 294)** - (2 disk set) Full featured modem program.
❒ **PROCOMM PLUS TEST DRIVE V1.1 (504)** - Menu driven modem program; still one of the best. NEW...
❒ **BOYAN VDS - (467)** - Modem program that has received great reviews by all.



DATABASE

❒ **FILE EXPRESS V4.22 (33 & 34)** - (2 disk set) Menu driven database; report generator, many features. NEW...
❒ **WAMPUM V3.2B (37 & 38)** - (2 disk set) Menu driven dBase III clone. Knowledge of dBase suggested. NEW...
❒ **PC-FILE + V2.0 (493 - 495)**- (3 disk set) Full-featured database; help screens, menus, macros. One of the best.
❒ **dGENERATE V1.0 (511)** - Screen & source code generator by Tom Rettig. dBase III required.

EDUCATION

❒ **COMPOSER (3)** - Create, save, edit, play, & print your music. CGA required.
❒ **LETTERFALL V1.1 (119)** - Improve your touch typing skills; 16 levels.
❒ **BEGINNING SPANISH (121)** - Teaches vocabulary, phrases, etc. Basic required.
❒ **THE WORLD 3D (127)** - Display maps of the world. CGA required.
❒ **FUNNELS & BUCKETS V 2.0 (130)** - Great learning game; add, subtract, multiply, & divide. Ages 5 - 10.
❒ **ERYN'S ABC'S (131)** - Teaches alphabet & numbers. Computerized Etch-a-Sketch. Ages 2 - 6. Basic required.
❒ **MATH-WHIZ (186)** - Teaches various math operations. Ages 5 and up. You choose the level. Basic required.
❒ **AMY'S FIRST PRIMER (133)**- Alphabet, numbers, counting, shapes, matching, etc. Ages 4 - 8. CGA & Basic req.
❒ **PLAY 'N LEARN V2.01 (624)** - Contains 7 games designed for kids up to 4 years old. CGA required.
❒ **SPELLING BEE (138)** - Grades 1 - 12. CGA & Basic required.
❒ **ALGEBRA TUTOR (577)** - Teaches various operations of algebra. NEW...
❒ **ANIMAL MATH/MOSAIC (181)** - Count objects & graphic learning tool. Ages 4 & up . CGA required.

EGA / VGA PROGRAMS

❒ **EGA RISK (216)** - The game of world domination. Superb graphics.
❒ **EGA UTILITIES/1 (260)** - EGA demos, change fonts, palette setting, etc.
❒ **ALDO'S ADVENTURE (605)** - Graphic advneture game. Watch out for those falling barrels... NEW...
❒ **VGA CAD V1.4 (564)** - A painting/graphics editor/CAD program. NEW...

GAMES

❒ **SLEUTH V4.1 (89)** - Murder mystery game similar to the board game "CLUE".
❒ **BLACKJACK (95)** - Advanced blackjack game with tutor, multiple players. Best one yet. CGA or Hercules.
❒ **MONOPOLY V6.7 (106)** - Just like the board game, 2 to 4 players. CGA req.
❒ **DND V1.1 (205)** The Classic Game. Inspired by Dungeons & Dragons. CGA req.
❒ **LAS VEGAS (116)** - Craps, Roullete, Poker, & more. CGA req., Basic on some.
❒ **3D CHESS V1.01 (215)** - Excellent chess game. Switch between 2D & 3D.
❒ **SAM SPADE V1.0A (226)** - Great detective game. CGA required.
❒ **SOLITAIRE (211)** - 4 different games. Nice graphics. CGA required.
❒ **SUPER PINBALL (212)** - 5 different games. CGA required.
❒ **WORDPLAY (367)** - Wheel of Fortune clone. You provide the prizes. CGA req.
❒ **HANGMAN (91)** - 2 versions of the ever popular game & learning tool. CGA req.
❒ **DIGITAL LEAGUE BASEBALL (344)** - Pick your team & players. CGA required.
❒ **MINIATURE GOLF (505)** - 18 hole golf course with graphics. CGA required.

GRAPHICS

❒ **FINGERPAINT V2.0 (282)** - Paint program, easy to use. NEW...
❒ **PRINTSHOP GRAPHICS / 1 (320)** - 3 more libraries of graphics for Printshop.Requires Printshop.
❒ **PRINTMASTER GRAPHICS / 1 (319)** - 3 libraries of graphics for Printmaster Plus. Requires Printmaster Plus.
❒ **PRINTMASTER GRAPHICS / 2 (549)** - Over 150 graphics for Printmaster Plus.
❒ **PRINTMASTER GRAPHICS / 3 (550)** - Over 150 graphics for Printmaster Plus.
❒ **PC-KEY-DRAW V3.33 (534-536)** - (3 disk set) - Combines features of a CAD & paint program for power/flexibility. NEW
❒ **DANCAD 3D V2.0E (424 & 425)** - (2 disk set) Advanced 2D/3D drafting program. Stereoscopic 3D wire frame animation. 512k req. NEW...
❒ **CITY DESK V6.0 (197)** - Desktop publisher with graphics capability.

LANGUAGE

❒ **TURBO "C" TUTOR (489 & 490)** - (2 disk set) 14 lesson tutorial ; learn to program in "C" language.
❒ **"C" LANGUAGE V2.1 (299 & 300)** - (2 disk set) Complete programming environment. Source, compiler, samples.

NOVELTY

❒ **STRESS & SHRINK (74)** - Stress - stress test. Shrink - personality analysis.
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❒ **ASTROLOGY V9.5 (284)** - Read your own chart from stars, moon, etc.
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❒ **FREEWILL V1.0 (171)** - Valid WILLS for California. Easy to fill in.
❒ **G.I.F.T.S. (618)** - Gift ideas for any occasion; Christmas is coming... NEW...
❒ **BIORHYTHM (194)** - Calculate & print your own monthly charts.
❒ **TENANTS RIGHTS (196)** - The 'Bible' for California renters. A MUST.
❒ **PC-BARTENDER (619)** - Recipes for approx. 200 drinks. Search by drink, ingredients, adjust sizes, etc. NEW...
❒ **WEIGHT CONTROL (586)** - Get rid of those unwanted inches / lbs. NEW...
❒ **AIRPLANES (398)** - Print paper airplanes, fold-em and let 'em fly. Basic req.
❒ **EDNA'S COOKBOOK (566)** - Record, file, list, & print your recipes. NEW...

PRINTER UTILITIES

❒ **LQ V2.26 (509)** - Produces high quality text on dot matrix printers. Multiple fonts with print spooler. NEW...
❒ **LASERJET FONTS/I (327)** - 30 + downloadable fonts for Laserjet Plus/II.
❒ **LASERJET FONTS / II (471 & 472)** - (2 disk set) More downloadable fonts for HP Laserjet Plus/II. Helvetica, Script, etc.
❒ **ON-SIDE (560)** - A sideways printing program with multiple fonts. NEW...

SPREADSHEET

❒ **PC CALC + V1.0 (537-539)** - (3 disk set) Complete Spreadsheet program. NEW.
❒ **GOAL SEEKER (558)** - Define your "goal" & the program will do the necessary calculations. Great... NEW...
❒ **LOTUS 123 TUTOR (177)** - Beginning tutorial for Lotus 123. Various worksheets. Requires Lotus 123.
❒ **AS EASY AS V3.0 (302)** - Lotus clone. 52 column sheet, graphing, supports functions of 123, "WK1" files, etc.

UTILITIES

❒ **DISK COMMANDO V2.0 (218 & 219)** - (2 disk set) Norton Advanced Utilities clone. Too many features .
❒ **SIM-CGA (220)** - Great for most programs that need color (CGA) to run.
❒ **DOS HELP FOR VER 3.3 (255)** - Help screen for DOS commands. NEW...
❒ **DOS TUTORIAL V4.4 (256)** - Menu driven tutorial that teaches DOS commands, terms, etc. A MUST. NEW...
❒ **BEGINNERS (257)** - The basics of using most public domain/shareware software. ❒ **LIST V6.2A (274)** - Best utility for viewing documentation or any ASCII file.
❒ **POWERMENU V3.1 (419)** - Menu program for your hard drive. Excellent.
❒ **PC-DESKTEAM V1.03 (278)** - Sidekick like utility plus more features.
❒ **AUTOMENU V4.01 (280)** - Excellent menu program for your hard drive.
❒ **VACCINE / FLU-SHOT (541)** - Various programs to protect againt "trojan horses" & the "virus". NEW...
❒ **HOMEBASE V2.5 (528-530)** - (3 disk set) - Great desktop organizer; editor/word processor, cut & paste, calendar/appt. book, & many more. NEW...

WORD PROCESSING

❒ **MASS APPEAL V3.0 (630)** - The ultimate mailing list manager... NEW...
❒ **PC-WRITE V2.71 (9 & 10)** - (2 disk set) Full featured word processor; all the features of the expensive one's.
❒ **LETTERHEAD (69)** - Create and print your own letterhead on letters and envelopes. IBM/Epson comp. printer req.
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❒ **WORDPERFECT MACROS FOR V5.0 [189]** - Contains over 80 macros. NEW...
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NEWS AND ANALYSIS

One week after the scathing article, Lotus announced a free upgrade to Version 3 for any user who buys *1-2-3* after September 6 for up to 30 days after Version 3 is released. However, the fine print in the ad angered many people. In a step that will prevent many users from updating, version 3 requires a full 640K of RAM and a hard disk as a minimum. Also, an 80286 CPU is recommended.

Commodore Offers Free Amiga Software To Teachers

Any school employee who buys a complete Amiga system before December 15 will get more than $1000 in software from Commodore in a promotion aimed at getting more Amigas in the school systems. The package includes a word processor, paint program, music, spreadsheet, database, grading and other software. Commodore hopes that more teachers will use the Amiga in their classrooms in order to help unseat Apple from the undisputed lead in educational computing.

Bizcomp's Modem Patent Invalidated

U.S. Robotics successfully sued to have a modem patent claimed by Bizcomp invalidated for being unoriginal and obvious. The patent covered a very small part of the way the modem works, but Bizcomp attempted to get a great deal of money from other modem manufacturers when the patent was issued. Although some manufacturers gave in, U.S. Robotics fought to have the patent invalidated and sued for damages against Bizcomp. After losing its case in 1987, Bizcomp appealed, but that appeal was turned down when the judges ruled unanimously against it.

AT&T Releases UNIX System V/386 3.2

Microsoft's XENIX got a boost from AT&T with the release of UNIX System V/386 3.2, making XENIX a proper version of UNIX. This lets current XENIX users who update to version 3.2 run all standard UNIX System V programs. This step follows AT&T's plan of unifying all major variants of UNIX. XENIX is the most popular microcomputer version of UNIX, so AT&T made it a priority to bring XENIX users into the UNIX fold. With the new version, Microsoft and Santa Cruz Operation, the major retailer of XENIX, can use the the UNIX trademark in their advertising.

Vendors Support New Intel/ DCA Communications Spec

Intel and DCA's new Communicating Applications Specification (CAS) garnered immediate support from major communications hardware and software vendors, indicating that it will be the wave of the future for message and picture transmission between personal computers. The CAS is a public domain specification that is freely available to anyone interested in conforming to it. Programs that follow CAS can send information to CAS hardware without having to worry about controlling a modem. Hardware that follows CAS can communicate with all other CAS hardware, as well as FAX Group III machines. This will greatly reduce the burden on the user for telecommunicating.

CAS comes at a time when the American FAX market is beginning to catch up with the already-established markets in Asia and Europe. Any document that can be sent to a printer can just as easily be sent to CAS-compliant FAX hardware. Although the initial specification only covers FAX-like hardware, future extensions will allow programs to transmit information over standard modems as well as network connections using the same protocols.

Intel compares the usefulness of the CAS standard for communications to that of the EMS standard for expanded memory. CAS makes it easy for a software company to include support for sending data through CAS as was seen at the press conference, where Microsoft, Symantec, Ashton-Tate, Borland, Crosstalk and Wordtech announced immediate or imminent software support for CAS hardware. Novell also announced that its network hardware and software will support CAS in the future.

The only hardware that currently supports the CAS sending protocol is Intel's new Connection CoProcessor board for the PC, although many hardware manufacturers have indicated that they intend to enter the market this year. The Connection CoProcessor runs at about the same rate as a 9600 baud modem, and can send and receive standard Group III FAX messages. The board costs $995, and other manufacturers believe that their competing boards will initially cost between $500 and $800. If the CAS standard becomes as popular as many industry analysts believe, the CAS boards could drop in price to around $300 within two years, similar to the way that high-speed modem prices have continued to drop as they become more popular.

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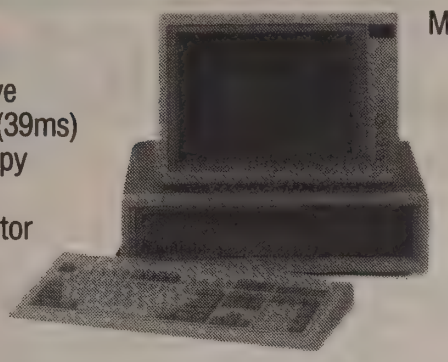

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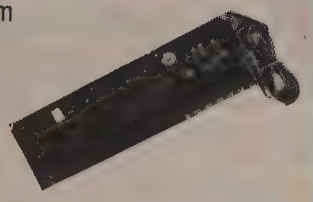

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1	1	WordPerfect
2	2	Carbon Copy Plus
4	3	Formtool 2.0
5	4	Dac-Easy Accounting
6	5	Lucid 3-D
–	6	Formworx
7	7	dBFast
12	8	SideKick Plus
10	9	Quattro
11	10	Flow Charting II
–	11	MYM
–	12	Generic CADD
9	13	Turbo Pascal
14	14	Org Plus
8	15	Turbo C

UTILITIES—MS-DOS

Last Month	October	
1	1	Norton Utilities Advanced
3	2	PC Tools
4	3	Fastback Plus
2	4	Direct Access
14	5	COREfast
7	6	XTree Professional
6	7	Norton Commander 2.0
8	8	Disk Optimizer
10	9	Norton Utilities 4.0
5	10	LapLink Plus
11	11	Sideways
15	12	Automenu
9	13	SeeMORE
12	14	Print Q
13	15	Q Dos II

MACINTOSH

Last Month	October	
4	1	QuickKeys
3	2	Superpaint
2	3	Canvas
1	4	Suitcase
5	5	Beyond Dark Castle
–	6	QuickMail
–	7	Symantec Utilities
–	8	Digital Darkroom
–	9	GOfer
7	10	SilverServer
10	11	Wet Paint
12	12	Word Finder
13	13	Stepping Out II
–	14	Hypertutor
–	15	Write Now

Source: Kenfil Distribution, Van Nuys, CA. "Kenfil October Bestsellers."

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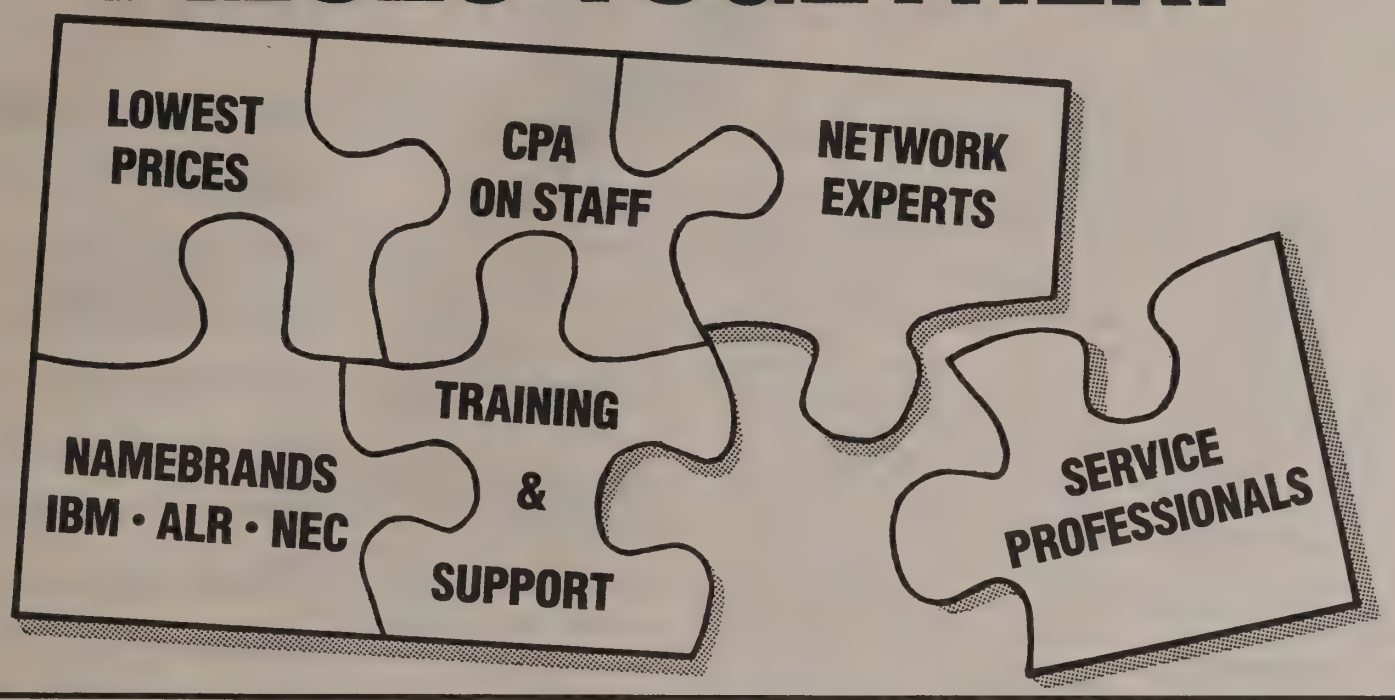

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INDUSTRY ISSUES • BY BROCK N. MEEKS

Online Sex "Education"

Most of my generation received their initial sex education on the playground blacktops of their elementary schools. We huddled around a purloined *Playboy* or quietly snickered at the crude, though anatomically correct, sketches found on public restroom walls. But if the Justice Department, *a la* Ed Meese, is to be believed, kids today are receiving an equivalent education via modems and computer bulletin boards.

The buffoonery of the Meese era would be laughable if his influence weren't being taken so seriously by other government agencies—particularly, the Federal Communications Commission.

On August 30th of this year Supreme Court Justice Sandra Day O'Connor allowed the FCC to begin enforcing a new law banning sexually obscene dial-a-porn message services, pending the full court's review of the statute. O'Connor denied a request by Sable Communications of California Inc. for a stay of a Los Angeles federal court law banning telephone services whose messages fall under the legal definition of "obscene."

The justice's denial of a stay means that the government ban on obscene telephone messages is in effect and that the FCC will begin enforcing it, according to Diane Killory, FCC general counsel. However, the law only applies to interstate dial-a-porn calls and those in the District of Columbia.

BBSes At Risk

In December of last year, the FCC began an enforcement action against two dial-a-porn services operated by Sable for allegedly not taking precautions to keep pornographic telephone voice messages from children. As mentioned above, Justice O'Connor has allowed the FCC to continue with its enforcement.

If dial-a-porn services are being targeted, can BBSes be far behind? And what of commercial online services, such as The WELL, where topics in the Sexuality and True Confessions conferences often lay out, in fairly explicit detail, all sorts of sexual forays and adventures? Will these be deemed obscene and therefore susceptible to FCC enforcement?

It's not clear if the same rules apply to telephone lines used by computers. I spoke with Greg Vogt, FCC common carrier enforcement chief, who said computer bulletin boards may not be under the agency's jurisdiction because the signal is altered by a device, such as a computer program.

But Vogt's comments only point to the fact that such issues haven't yet been tested within the FCC. "We haven't had to rule on any pornography issues via computers," said FCC special council Anne Siegel. The law on telephone pornography, she said, "has so far only focused on traditional dial-a-porn messages. The statute would arguably apply whether it's a telephone or electric bulletin board."

To Ban Or Not To Ban

Is there any validity to the so-called "online pornography" issue?

According to UCLA communication law professor Dan Brenner, a modem in the hands of a minor opens a wellspring of online pornography replete with animated nudes, sex-filled BBSes and files filled with off-color jokes.

"If parents let their children use a computer and modem without supervision, it's not a lot different from allowing them to watch cable TV or the VCR," said Brenner.

It's no secret that sexually oriented BBSes have proliferated. On hundreds of "adult boards" across the nation, you can readily access any number of sexually oriented jokes, pictures, sexual message bases and "dial-a-match" dating services. And from my own perusal of underground BBSes (most operated by teenage "pirates"), their sexually oriented discussion has all the flavor and carnality of my bygone locker room years.

A more insidious attempt to portray the online world as a depository for porn is that of the Justice Department. For three years the DOJ has carried out a campaign to convince government agencies and congressional subcommittees that BBSes are a main pipeline for child pornography.

According to Robert Showers, executive director of the Justice Department's National Obscenity Enforcement Unit, "The computer was the one device we found in several pedophile cases. Computers kept coming up; they linked onto them," he said, referring to online pedophile networks.

But when pressed, Showers declined to cite specific instances; he couldn't or wouldn't provide conclusive proof. However, he insisted that pedophiles now use floppy disks and electronic bulletin boards to send messages and pictures with child pornography from computer to computer.

"You can actually reproduce a picture on the computer. You can produce the child pornography and send it one computer terminal to the other," said Showers. And then he dropped the bomb: "I think law enforcement is just beginning to get the intelligence information on the use of computers in child pornography." Meaning, of course, that someone in the Justice Department is perusing BBSes just looking for an excuse to link child pornography to the online community.

Before I am branded as a defender of child pornography, let me state: I am not. I abhor it. And while I am all for the free flow of information and ideas, I would not support the "rights" of pedophiles to exchange pictures or information on potential victims via a BBS.

I am, however, resolutely opposed to the methodology and disinformation campaign being foisted on our lawmakers by the DOJ concerning the online pornography issue.

For three years the Department of Justice has carried out a campaign to convince government agencies and congressional subcommittees that BBSes are a main pipeline for child pornography.

High Tech Erotica

The vast majority of sexually oriented online material is not exploitive of children. In fact, I have yet to see any evidence of pedophiles using a BBS to pander to their disease. Most sex-oriented material available online is also readily available via traditional channels: magazines, videos, cable TV and telephone.

Such online erotica are commonly made available due to readily available scanning techniques which digitize pictures found in magazines, and in some cases, from reproducing an image from video tape. In the case of some Macintosh files, the pictures are even animated.

In my experience, BBSes carrying such sexual content have a warning such as "Caution: Adult material." And the sysops I've spoken to generally adhere to a strict policy that has them calling a potential user to verify that the user is indeed over 18 years of age. However, given the built-in ambiguity of the medium, judging someone's age is a tough call to make over the telephone.

And while such screening would seem adequate, the principle falls short in practice. A random call to an adult-oriented board revealed a directory of files that required no age limit and offered a "free look" at several so-called "adult" files. These included "Intersex," "Orgy," "Nudepics," "Porno," "Xpics," "Slave" and others more graphic or suggestive.

"Animated sexual display," said the description of one file. Others are billed as "X-Rated Game — Strip Poker is just the start!!!" and "Gay Guys" and "Three Naked Ladies."

Accessing these files revealed nude stills, ani-

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mated pictures of couples making love, files of crude jokes, adult games and a nude picture of an actress appearing on the computer screen.

A BBS in New York offer the "Eroticomm party line," an "Open X-Change" for erotic stories, a Sexshop Personals service to sell and swap merchandise and "X-mail to exchange lusty messages." All devoid of any age limits.

I find such shoddy screening policies saddening. With rights come responsibilities. Disregard the latter and you will be denied the former. I guarantee it.

Pressing The Limit

Pornography via BBS is a new legal issue. Agencies such as the FCC are grappling with how such online communications fit within First Amendment protections of free speech and press. The issues are far from being resolved. And officials at the FCC are more than willing to err on the side of caution, determined to carry out their court appointed mandate with religous fervor.

Such "hunting" by governmental agencies builds a dangerous platform. Sysops of boards carrying sexually oriented messages may, in the near future, find the FCC knocking at their door, demanding that all "offensive material" be withdrawn from the system. Such actions are likely to be couched as a program predicated on a "good neighbor" policy. In reality, it's hard-core censorship.

Users, too, are not immune. Transferring obscene materials via computer might very well be considered a crime.

In November of 1987, President Reagan proposed legislation "making illegal the computerized network that child molesters and collectors of child pornography have developed."

The bill was introduced in Congress with arch-conservative Jesse Helms as its leading sponsor and has since garnered overwhelming support in both houses. But the bill takes a much broader approach to pornography. If passed, it would endanger every online conference that deals with the bill's sweeping definition of what is obscene.

"Technology generally outstrips the law. When technology moves faster the law tries to catch up with it," Showers said.

"Looking at it as classic freedom of speech issue, people do have the right to look at what they want in the privacy of their home," said UCLA's Brenner, noting however, that "criminal activity is not protected, no matter where it happens."

Brenner said computer porn purveyors must make a good faith effort to bar underage users. However, he couldn't define just how extensive those "good faith" efforts must be.

And, so it appears, the FCC is making a "good faith" effort to assure that BBS users and sysops adhere to their mandated definition of morality.

If the Justice Department really wants to take a bite out of computer porn, I'd suggest a more rational approach: hammer on copyright violation. Those scanned pictures are protected under longstanding copyright laws. Pictures, like words, have copyrights. And 99% of all sexually oriented graphics have been scanned (copied) and uploaded somewhere in direct violation of the federal copyright laws. So, my dear public officials, enforce the enforceable, and leave the morality where it belongs—up to the individual. □

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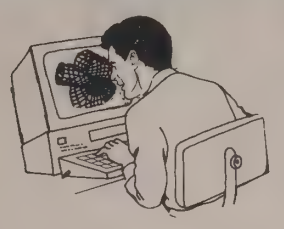

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Wish List For The Lap Mac, 4-D CAD, And Why I Won't Buy A PS/2

This column is for those who convert the present into the future—and for those voyeurs wishing to watch the conversions.

Key Desires For The Lap Mac

As Mac-lovers know, modern micros have pointing devices as part of their user interface. Mice may be nice for desktop devices, but they crawl poorly on laps. With the laptop Mac forever forthcoming, perhaps this proposal is still in time:

"Adequate" laptops of the future should have one or more pointing devices that don't require a flat surface. At a minimum, there should be a small trackball. Two trackballs would be better—one in each lower corner of the keyboard area.

Each should have at least one or two program-definable buttons adjacent to them, including thumb buttons. This allows four fingers for pointing and the thumb for picking/clicking.

Among the advantages of symmetric trackballs: They acknowledge that most users have two hands. They avoid "handedness discrimination" (left-handed versus right-handed).

For menu selection and more limited pointing—where the objects can be separated on the screen by the size of a finger-end—touch screens should be offered, at least as options.

Of course, other laptop makers may be expected to offer these rodent-free features, but the Lap Mac should be the first—if it proposes to be "The First."

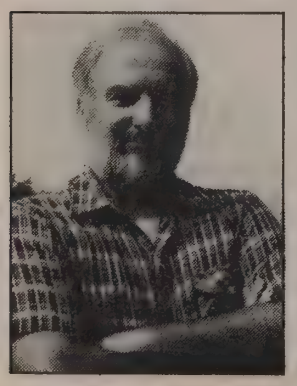
4-D CAD & Other Drawing Deliberations

For several years, I've been a delighted user of *AutoCAD* — the potent computer-aided drafting system with the "high Mack factor" from AutoDesk in Sausalito. (Aside: "Mack factor" is a term I first heard from Bill Godbout, the ex-IBM computer engineer and entrepreneur who founded Godbout Electronics, Compupro and numerous other massive micro ventures. We agreed that he built computers with a high Mack factor—heavy-duty machines built like Mack Trucks.)

Anyway, continuing CAD comments:

CAD systems should include a 4-D capability — with the fourth dimension being the usual one of time. Thereby, one could attach an optional time attribute to drawing components. Then, upon command, the drawings of a system to be constructed could be displayed or drawn illustrating the desired construction sequence.

Picking nits: One should be able to ask for the distance from a point to a line segment—or its projection—without requiring the extension of the segment to the point of perpendicularity or the construction of the perpendicular. Similarily, it should be simple to query the distance between parallel line segments (or their projections), or between a point and a plane (with the plane defined in any of the classical ways), or between a plane and a line segment parallel to the plane.



Copyright © 1988 by Jim Warren. All rights reserved. *Jim Warren founded the West Coast Computer Faire, the* Silicon Gulch Gazette *and* Infoworld *newspapers, Video Initiative, and the DataCast proposal for broadcast-based paperless electronic newspapers utilizing personal computers. He was the founding host of the PBS* Computer Chronicles *series, founding editor of* Dr. Dobb's Journal, *and founding president of the Microcomputer Industry Trade Association.*

An 80xxx Public-Domain Bus

I won't buy a PS/2 computer. There's no telling how quickly Big Blew will-again-produce a design that arbitrarily and unnecessarily renders obsolete the investment of IBM customers in such current IBM products. (In fact, they may have already started—announcing the PS/2 Model 30 286 in mid-September . . . which has the capabilities of the PS/2 Micro Channel, but doesn't use the PS/2 bus.)

Frothing further: IBM showed infuriating arrogance when it—unnecessarily—designed the PS/2's bus in a manner that was incompatible with IBM's multitude of previous IBM PC-bus products. It displayed ample disregard for the loyalty shown by the several million

IBM customers who bought IBM PC-bus equipment and IBM PC add-in boards. Many of those IBM customers—who paid IBM's higher prices—foolishly presumed their loyalty would be honored by the Big Blue Monolith; that their significant investment would not be unnecessarily made obsolete.

I have long said that responsible industry members should join in designing and adopting a public-domain bus that meets the needs of a 32-bit world, while retaining compatibility with the many millions of perfectly good PC-bus add-in cards already in use.

On Sep. 13th, Compaq, Intel and Microsoft announced what *may* be such a standard—called "EISA," Extended Industry Standard Architecture. To put it mildly, I was gleeful when I read of it.

However, there may be some bugs in the Vaseline. Michael Slater, Editor of the *Microprocessor Report,* says he received additional details regarding EISA specs and licensing. Seems computer and board makers desiring to use what many think of as being a public-domain bus standard must get its details from a Washington DC law firm, sign a nondisclosure agreement, pay "administrative" fees, and have the "option" of signing a licensing agreement. What's more weird—in this fast-moving industry—is the allegation, attributed to IBM V.P. Bill Lyons, that EISA products "won't be out for 18 months."

I have long said that responsible industry members should join in designing and adopting a public-domain bus that meets the needs of a 32-bit world, while retaining compatibility with the many millions of perfectly good PC-bus add-in cards already in use.

Questions: Doesn't IBM own over 25% of Intel? Isn't Microsoft furnishing IBM their PS/2 operating system? (The law firm handling EISA stuff is Bishop, Cook, Purcell & Reynolds, 202-371-5921.)

More Scuba-Speak For Diverse Divers

An increasing number of dive computers have been offered to the million-plus scuba divers in the last decade. These are handheld gadgets that report time under, depth, maximum depth, rate of ascent, nitrogen absorption, safe time remaining, etc. Some also report tank pressure, air remaining, etc.

As yet, there are only traditional needle compasses—often very finicky about being level. So—let's include digital compasses in the dive electronics; may as well have all the dive instrumentation equally (un)reliable.

Also: In my last column, I asked about computer bulletin board systems for scuba divers. Clay Phipps of Santa Clara promptly identified two—but only

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Questions: Doesn't IBM own over 25% of Intel? Isn't Microsoft furnishing IBM their PS/2 operating system?

two, and none in California (tsk, tsk). Both are full duplex, 24 hours/day, 7-E-1:

Divers Net, 813-332-0617, 1200 baud has been run for the last three years by ABC Sports Store, 1915 Linhard Ave., Ft. Myers FL 33901. They are now actively seeking someone to take over the operation —after logging 120,000 calls from 40,000 divers.

The other one is Diving Board, 416-683-6397, 300-1200 baud, 47 Cowling Crescent, Ajax, Ontario L1S 2Z6, Canada. (Check future *MicroTimes* BBS listings for newfound divers' BBS'.)

Sadly, Clay added: Computer-owning divers seem to "maintain a one-way relationship between computing and diving. The computing is used to bring in the bucks to subsidize their diving, but the diving is not used to justify spending more bucks on their computers."

This seems ripe for entrepreneurial and altruistic ventures, given the several million certified scuba divers in North America and their ongoing need for information exchange on equipment, dive sites, dive buddies, etc.

And, yes, my feet fit fins as well as skates; see you down under.

A Need [Still] Unfulfilled: A Meta-BBS

We're still wondering: Is there a BBS that makes a serious effort to maintain a list of all the other ever-changing BBSes?

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Warren To Be CPSR'88 Keynote Speaker

Jim Warren will be the keynote banquet speaker for this year's National Conference of the Computer Professionals for Social Responsibility. His talk is titled, "Computers, Information and Politics." CPSR'88 will take place Nov. 19th and 20th in Palo Alto, California. For more information, contact: CPSR, Box 717, Palo Alto CA 94301; (415)322-3778.

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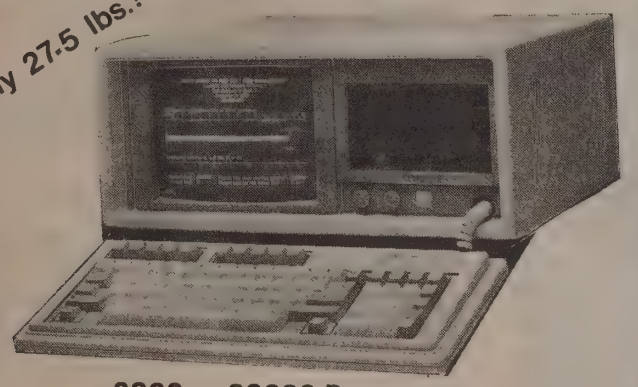

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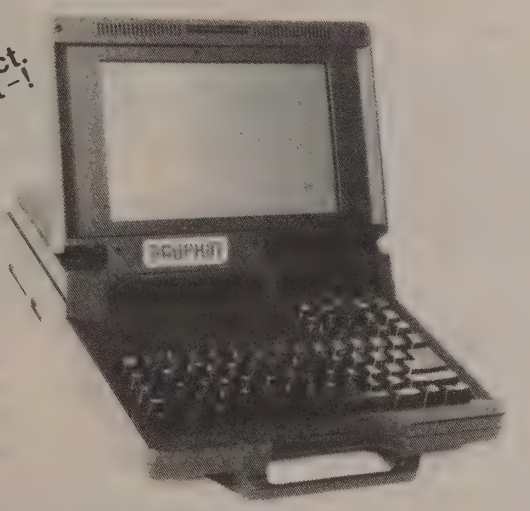

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The Care And Feeding Of Your Computer

I assume that if you are reading this article you either own or use a computer in your everyday life. Some of us use terminals linked to large systems in remote locations, but more and more of us have personal computers (PCs) on our desks. With the decentralization of the computer function comes the decentralization of the responsibility for taking care of your equipment and data. Too many users have learned the hard way: equipment can be replaced, but data that is not backed up can be lost forever.

This article covers simple and often overlooked obligations of PC ownership. Those readers doing their accounting on a PC should take special note, not only because it is the area I specialize in, but because the loss of accounting data can be devastating to a company's operations. A lost word processing or spreadsheet file can be frustrating and time-consuming to recreate, but losing your accounting data can cripple or even halt your entire operations.

Powering On And Off

Try to minimize the number of times you turn your computer on and off during the day. Many people turn their computer off every time they leave their office. Don't. It's better to leave your computer on when you take a break or go for lunch. The computer system in my department is often on for a week or more because staff members dial into our local area network from their home computers.

When you turn your PC on you are creating a massive surge of power through the system. Its somewhat analogous to a light bulb. Light bulbs seldom burn out while they are on; it's when you first flip the switch that the light goes out.

If you will be away from your computer for an extended period of time, though, you should turn down the brightness control on your monitor to prevent the image from damaging the video screen. Always, save your work before leaving the computer.

Should you experience problems when you first turn your computer on, check to make sure that all the electrical connections are tight, and that your installed devices (i.e. printer, hard disk, modem) are turned on. This is a common problem that we see again and again.

One final note: always exit the program you are using before turning the computer off. The disk drive head that reads and writes the data may fall ("crash") on a section of your disk and damage your files. Also, many programs get confused if you do not exit to the beginning before powering off. This causes problems the next time you run the program.

Storage Media

Always have an ample supply of blank formatted disks (and tapes) available. This gives you the ability to back up files at any time. Our company uses disks by the hundreds so we buy them pre-formatted. Anytime a disk is needed, it is ready to go. Remember, disks are one of the cheapest forms of insurance available. Don't make the mistake of using unreliable brands or not having enough disks on hand.

I also recommend periodically cleaning up and checking the performance of your hard disk. Keeping copies of unnecessary files can cause the disk to get full and sluggish. The speed with which your computer finds, sorts and stores your data can be noticeably reduced by a cluttered disk.

Software utility programs are available that will perform diagnostics on your hard disk and tell you how efficiently it is operating. These programs tell you the number of files and directories created, how many files are fragmented, how many bad sectors there are and how fast the hard disk is operating. Utility programs then give you the ability to correct many of these conditions. One caution with these programs though: they should used by someone who understands precisely what the program is doing to avoid any undesired results.

Care Of Floppy Disks

The slightest abrasion or soiling of a floppy disk's surface can make a file unreadable. Handle disks with care. Do not touch the exposed area of the disk —hold it gently by the protective jacket, either at the edges or at the top, where the label is affixed. Never fold or bend a disk or attach paper clips or staples to it.

Keep disks away from heat sources, direct sunlight or high humidity, even when they're in their protective sleeves. Disks are plastic devices holding magnetic fields. Heat can melt or warp the plastic thereby destroying your data forever.

For the same reason, isolate disks from any form of magnet. Electric motors, stereo or public address speakers and telephones all emit magnetic fields that can affect a disk. And don't forget such things as the magnet used to hold letters to a typing stand or the clasps on briefcases and purses.

Disk labels should be prepared before affixing them to a disk. If you need to write on a label already attached to a disk, write with a felt-tip pen, never a ball-point, and use as little pressure as possible. The pressure of writing on a disk label can damage the floppy disk. This is not a problem if you are using the newer 3 1/2" disks. They have hard outside cases which better protect and conceal the floppy disk inside.

Labeling disks properly prevents accidental destruction of work and enables files to be located quickly and easily. In our office this includes not only the client's name and/or the type of files on the disk, but the creator's name and file creation date as well.

Never open a disk drive door when the red light is on. The light indicates that the drive is in motion. If you open the door while the drive head is active you could make the disk unusable, as well as damage the drive head or cause it to go out of alignment.

Always have an ample supply of blank formatted disks (and tapes) available. This gives you the ability to back up files at any time. Remember, disks are one of the cheapest forms of insurance available.

Backing Up Your Data

It is important to keep backup copies of both your programs and data files. Make duplicate copies of your program disks, and store the originals in a safe place, separate from your backups. The best policy is to keep a copy of your program files off-site.

Some software, especially accounting, requires a great deal of installation and configuring before you can even begin to use the program. Always make a backup copy from the hard disk after installation and store it separately from your regular backups. This can save you considerable time in the event you are required to reload the software.

For accounting files, back up your data on a systematic, regular basis. Have a minimum of three sets of backup copies of your data and rotate their use. Always update the oldest copy each time you back up, remembering to keep a log of the date of each backup. Keep a slip of paper in the jacket of the disk with the date, and indicate the step you were taking when you made the backup. You might need to refer to a backup and need to know "Was this the backup before or after I posted the General Ledger?"

For word processing and spreadsheet files, keep one copy on your hard disk and at least one other copy on a floppy disk.

Be aware of the possibility of theft of your hardware and software, or destruction of your files by an unforseen catastrophe or unhappy associate. Have a backup copy of your data taken to a safe location off-site every month.

While there are many products on the market that you can live without, a surge protector should not be one of them. Power surges occur continuously and are a primary cause of damage to computers, software and data. "Spikes" of electricity can wipe out your entire system. Protect your investment by purchasing a quality surge protector. Read the specifications on the label to ensure that you are

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Suzanna Musick is a Manager in the Computer Consulting Department of Hemming Morse Inc., CPAs. Her experience encompasses a wide range of industries such as distribution, retail, construction, real estate, financial and professional services.

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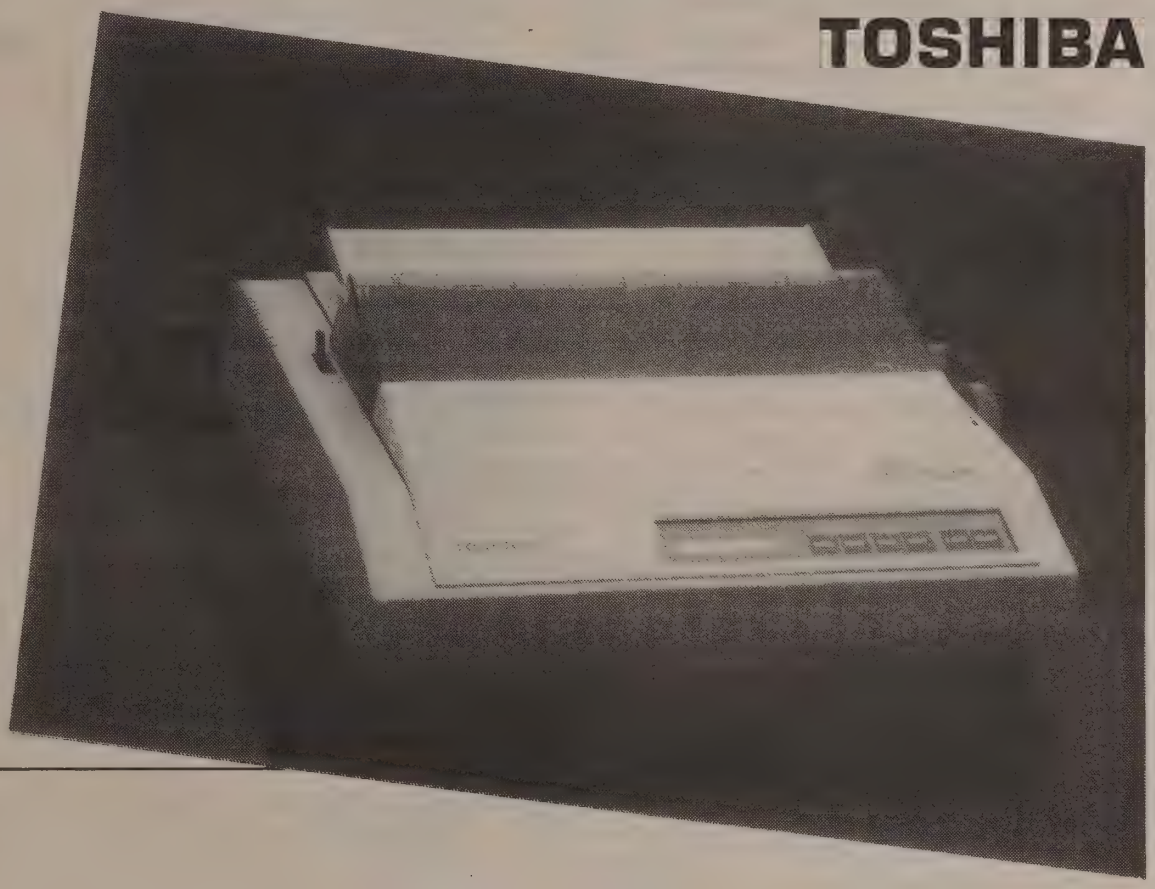

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If you have numerous computers as we do (over 90), it is too expensive to purchase a service contract for each one. If we have a problem with a computer, the person using it can share another computer until we get theirs fixed. But if you only have one or two computers for your accounting, you should seriously consider purchasing an on-site contract for the equipment. You will get faster service and your costs may be reduced in the long run with a service contract. This is true for printers as well, which typically malfunction more often than computers.

Keep up-to-date records on all your computer equipment. This includes the type of computer, the model and serial number, date of purchase, vendor, service telephone number and your service contract number for each component. This information is valuable when you have a problem and need to get it fixed. The vendor will want to know the date of purchase; if you can provide them with a copy of the invoice, you are one step closer to getting your problem fixed.

Dust and dirt can cause your computer to malfunction. Using a dust cover to keep out unwanted particles is the best method of protection.

Be extremely cautious about jarring a hard disk when moving it to prevent "head crashes." If your computer must be moved, follow the manufacturer's recommended procedure to prevent loss of program files and data. Most hard disks come with a "sit" or "park" program which moves the drive head to a safe location on the disk for moving it from place to place.

System Breakdowns

Although your system will be relatively trouble-free once it is up and running, don't expect it to last forever. Problems will occasionally arise. Be prepared for errors before they occur. Have written recovery procedures for predictable accidents such as a power loss, theft, damaged equipment, etc. For larger installations this could mean that the best strategy is to have spare equipment, (e.g., a backup power supply, extra disk drives or an extra printer) on hand.

Most importantly, when you have a problem with your system, don't panic. Take time to document the problem. If you can do a "screen dump" of what is on the screen, especially an error message or code, do it. If not, write down exactly what has happened and what you are seeing on the computer at that moment. If you don't, you will find it difficult to recall what occurred minutes later, much less hours or days when you are trying to explain to the technician what went wrong.

When you encounter evidence of something wrong (e.g., a "parity error" message) don't ignore it. Continued use may complicate the problem and result in loss of data files. Document in writing the steps that led to the error and let the appropriate person in your company know about it right away.

Insurance

Many people forget to add their computer equipment to their insurance policies. If you buy computers like we do, it is one of those things that can slip through the cracks. Don't let it. I worked at a company where we had computers stolen. Fortunately, we had backups of our programs and data, and our equipment had been added to our policy.

Make sure you review your existing insurance to see if it covers your computer equipment and data. Your system should be covered for loss from theft, vandalism, fire, flood and other disasters.

Make sure you review your existing insurance to see if it covers your computer equipment and data. Your system should be covered for loss from theft, vandalism, fire, flood and other disasters. Have your policy written for the full replacement cost of the equipment (not its depreciated value) and make sure it includes coverage for software and data. Some policies are more comprehensive than others. You may need to add a special endorsement (rider) or a separate computer policy to cover your needs.

Other features on insurance policies to consider include:

Coverage for equipment taken off site to clients' offices, employees' homes, etc.

Extra-Expense Coverage, which compensates your company for increased costs of operating while the system is down (such as hiring temporary workers to reenter lost data, or manually perform a previously computerized task).

Business-Interruption Insurance, to compensate for lost revenue while the computer is down.

Emergency Situations

Review your office's emergency preparedness. Make sure you have adequate smoke detectors and fire extinguishers. Be sure employees know how to operate the fire extinguishers and which ones can be used around computer equipment.

Have a written policy regarding backups, their frequency and storage, and make someone responsible for enforcing your policy.

There is more to owning a computer system than just turning it on, using it and turning it off. As with any other piece of machinery you use, your computer requires care and maintenance to perform at its best. The suggestions listed in this article can go along way to helping you preserve your computer, your data and your sanity.

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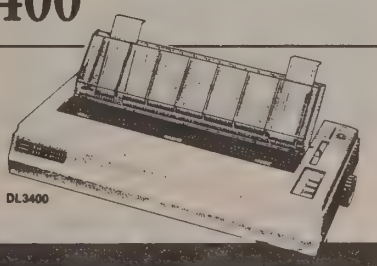

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Adobe & The PostScript Future

In the world of consumer products, the most successful inventions tend to be actual physical things: cars, boats, microwaves, TVs. In the software world, that rule doesn't really hold. Fortunes are made and lost on abstractions, ideas and their implementations. No one ever baked a pie in a graphical interface, but lots of writers and artists would have a hard time living without one.

One of the most successful ideas to come out of the Bay Area's high tech frontier is PostScript, the page description language from Adobe Systems of Mountain View. Like the *idea* that a graphical interface should give you WYSIWYG, PostScript is the *idea* that a laser printer should be able to print anything—from halftones to lines to curves to fonts to bitmaps. Its implementation is the PostScript interpreter—the brains and the driving force behind a cadre of laser printers like Apple's LaserWriter NT, NTX and the Linotronic 300. Since the release of the first Apple LaserWriter in 1985, PostScript printers have cornered about 1/3 of the laser printer market, and Adobe has licensed its interpreter to 30 OEMs including both Apple and IBM.

Adobe's roots can be traced to Xerox PARC (Palo Alto Research Center), a research organization Xerox founded in 1972 to design the *office of the future*. The list of PARC alumni reads like a who's who of high tech—among them Alan Kay and Larry Tessler of Apple, Bob Metcalf of 3Com, Dick Ladell of Metaphor, Eric Schmidt of Sun, and John Warnock and Chuck Geschke of Adobe. At PARC, these computer aces were basically given carte blanche to invent their version of the office of the future—and they did. Back in 1977, Xerox had most of what exists today in the Mac, plus a lot more.

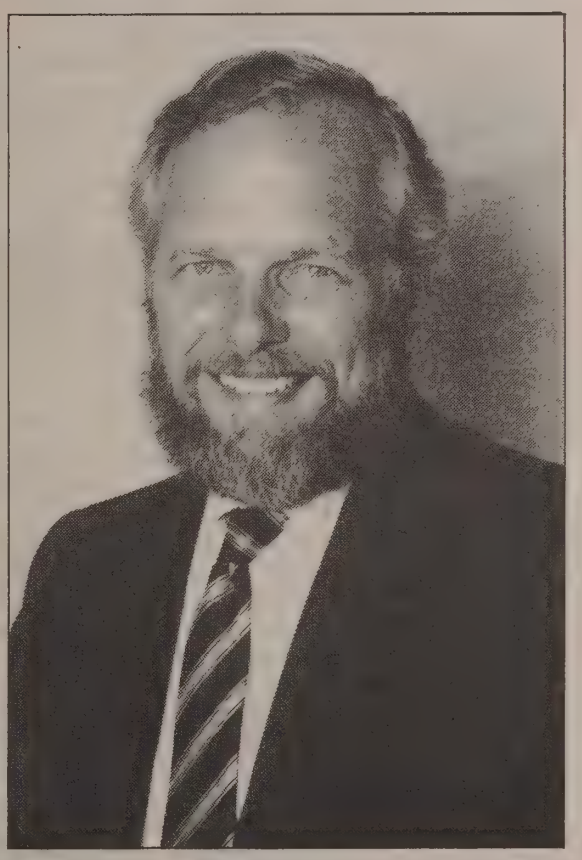
Unfortunately, Xerox's peculiar weakness was an inability to bring this brilliant engineering to fruition as real products. And as it became clear to the PARC engineers that their work would remain a largely intellectual exercise at Xerox, they began leaving. The common vision they shared gradually began to trickle into the outside world, captured in products like the Mac, LANs and PostScript.

Warnock and Geschke's particular expertise was in laser printers and imaging. They left in 1982 to form Adobe Systems, where their first task was to refine and extend the laser printing protocols they developed at PARC. This was *not* the work of a couple of afternoons. Some aspects of PostScript posed fiendishly hard problems, as many would-be designers of PostScript clones are discovering.

One of Adobe's biggest challenges was fonts. In the laser printers used at PARC, as in the HP LaserJet, fonts were stored and printed as bitmaps—basically, collections of dots in the shapes of letters. Unfortunately, if you try to enlarge, compress or rotate bitmaps, the appearance of the letters quickly degrades. So Adobe took a different tack. They decided to store fonts as outlines of individual letters. Unfortunately, outlines also have their problems. If you take an outline at, say 16 points (a point is 1/72 of an inch), and expand it to 72 points, it distorts—the letters' edges get very jagged. Similarly if you take that same 16 point outline and reduce it to 5 points, the letters start looking like little black rectangles.

So Adobe built intelligence into their fonts. Each character is actually a separate PostScript program.

President John Warnock On Printer Technology, Display PostScript, PostScript Clones and Steve Jobs'NeXT Computer



By Steve Guttman and Mary Eisenhart

Photos: Michael Jay

Inside these programs are special routines Adobe calls "hints," which change the construction of the outlines as the type is scaled. These "hints" are highly proprietary and are encrypted inside Adobe's fonts. They are the reason that most people believe Adobe fonts look better than other vendors' fonts at small and large point sizes.

But it wasn't just technical chops that put Adobe on the map. In 1983 and '84, a Harmonic Convergence of sorts occurred as Apple, Aldus and Adobe all learned of each others' aims and existence. Steve Jobs needed a letter-quality printer for the Macintosh, and daisy-wheels couldn't cut it in the world of graphics and multiple fonts. The technology that Adobe was developing dovetailed beautifully with Jobs' plans for the LaserWriter. At the end of '83 Adobe signed a licensing agreement with Apple to produce the PostScript driver and the original fonts for the LaserWriter.

Meanwhile, in Seattle, Paul Brainerd had formed Aldus, intending to marry text and graphics in desktop publishing. PostScript and the Mac gave Aldus the technology they needed to make desktop publishing a reality—the behind-the-scenes hardware and software machinations. But *PageMaker* gave consumers a reason to buy into that technology, and in 1988 that's big business.

Since the release of the first LaserWriter in January of 1985, Adobe has been on a roll. It's signed licensing agreements with 30 OEMs, which account for about 70 PostScript laser printers. It now sells 69 typeface packages containing over 300 typefaces. And this past summer it released the first set of Kanji faces in PostScript. Adobe has more than doubled its revenues and profits each of the past three years ('84 - '87) and June's earnings continued the trend with revenues up almost 100% from the previous year.

Not content with inventing only one "breakthrough" product, in March of '87 Adobe introduced the revolutionary *Illustrator*. *Illustrator* was the first real drawing tool for graphic artists. Programs like *MacDraw* and *SuperPaint* were great for simple art, but lacked the control and finesse needed by serious artists. *Illustrator's* special contribution was the "pen tool," a drawing tool which uses PostScript's native Bezier curves to construct irregular shapes that can be easily modified. It also has the ability to use scanned art as a template over which a final piece of artwork can be traced and manipulated. *Illustrator* was voted "Best Graphics Product," "Best Business Productivity Tool," and "Best of the Best" by the Software Publisher's Association in their 1987 rating of Mac and IBM software. The current offering, *Illustrator 88*, adds freehand drawing capability and other powerful features.

In the future lies Display PostScript, a version of PostScript that brings its power and flexibility to computer displays. Adobe transferred its technology to computer monitors and introduced it in the beginning of 1988. Popular opinion holds that Display PostScript offers the only currently available way of getting true WYSIWYG, as the fonts and imaging models of the display and printer are the same. Display PostScript will make its debut in a new product on Oct 12 when Steve Jobs introduces the much anticipated NeXT computer. But already it has been endorsed by a number of vendors including DEC, and rumors of an IBM deal have also been heard.

At the September Seybold Desktop Publishing Conference, Adobe announced two new products: The long awaited PC version of *Adobe Illustrator* made its formal debut. *Adobe Illustrator, Windows Version* runs under Microsoft *Windows* v2.0, and promises to bring its artistic sensibilities to the DOS world. It will ship by year's end and will retail for $695. Adobe also announced a unique new product called *Font Folio*, a hard disk containing the entire Adobe Type Library, which now comprises over 300 faces. *Font Folio* is designed to be connected to an Apple LaserWriter NTX, where it gives the printer immediate access to all Adobe's typefaces (no more going out for coffee while your fonts download). The product will begin shipping in November and will retail for $9600.

In addition, Adobe added 13 new typeface packages to the Adobe Type Library, and revised installation and downloading software for all its PC fonts. The new typefaces and the PC font upgrade are available now.

We talked with Adobe's president and CEO, John Warnock, at the Seybold Desktop Publishing Conference, shortly after he'd announced that Adobe's Display PostScript would be appearing on the long-awaited NeXT workstation from Steve Jobs.

What was the need PostScript was designed to address?

There was this interesting anomaly. People have always said that graphics were important for business, or graphics were important for the computer industry, and what people meant by that were different things. Traditionally, all the graphics that have been in the computer business came out of the engineering side, so they were sort of CAD/CAM graphics; vectors, stick figures and things like that. Our experience at PARC taught us that that was not what businessmen buy graphics for. Businessmen buy graphics for the 500 years of graphic arts tradition; in other words, typeset documents, headlines, line thicknesses and weights and endings, halftones. In other words, the 500 years of graphic arts tradition is what business really needed. There was no printing protocol that could simulate that on computer printers.

What was the state of phototypesetting at that time?

There were all these vertical systems that people used, and service bureaus—it was a service oriented industry where you would become specialized at producing documents and then industry would come out to get documents to be produced that way. And so you were a CompuGraphic shop, or in the Linotype tradition, or in the Varityper or ITEC. They were all closed and proprietary and they didn't trade information. They had separate font libraries —everything was separate.

So what happened was—we felt, gee, it would really be neat if we could unify some of the principles and build a page description language so I could describe any page, whether it's an advertising page, or halftones, or line art, or whatever.

What was the state of laser printers at that time?

They were expensive. They were about $20,000 - $30,000 for the cheapest of the laser printers. Four things came together to make Adobe successful: One was the Mac with the graphical user interface. Another was a drop in the price of laser printers; Canon came out with the OE/PCX. That was a very

big turning point. The other thing was memory prices dropped significantly.

Those were the days. . .

(laughs) Yes. And the fourth thing that happened was that Aldus came along out of the publishing industry and felt that they were going to make a market in the personal computer business. And those four things happening at the same time is what made desktop publishing.

Was that fortuitous?

Very! Just luck, blind luck. I mean, independent activities all coming together at the same time.

I never particularly read that it was one of Steve Jobs' big agendas.

No. What Steve's role was in it is that we got to know Steve in the summer of '83, just after we formed the company. And we showed him some of the initial prints that we got off on some of the laserwriters, and he just fell in love with the technology. He just really liked it; he liked the style, he liked the approach. And he needed a high resolution printer for the Mac. He couldn't do it with preformed characters, a daisy wheel, because of the graphical nature of the Mac. And the ImageWriter was not high enough quality. And they had tried to solve some of the problems, and they ran into the same brick wall that everyone else runs into. This is much harder than it looks!

So he fell in love with the technology and in the end of '83, we signed a contract with Apple to produce the LaserWriter. We worked through the last part of '83 and all of '84 in putting together the LaserWriter, and in January of '85 the LaserWriter was announced.

Did you have any input into the Mac operating system itself, because that's a font-based operating system?

Not really. They had gotten most of New York and Geneva and all of those things together by the time we started to interface. Those were not PostScript fonts—those were the very first ones that were announced with the Macintosh. That was in the '84 time frame; the Times and Helvetica came on as sort of an afterthought. So there was a close enough fit between QuickDraw and PostScript so that all of this worked very well, and they worked very hard on making the interfaces so that they were fairly transparent to the software developers.

How did PostScript come into being? Because it's such a brilliant concept. Did it just come to you at three o'clock in the morning—"Ah, the solution!"?

(laughs) No, no. It's actually almost 12 -13 years old now. I was at a company called Evans and Sutherland that did high performance graphics equipment, and we needed a language to build very complex three dimensional databases for flight simulators – this is very esoteric stuff. So we decided, because we never knew what hardware we were going to be running this on, to make an interpretive language where at the very end of the process we could build the database that would run on the simulator. And that language was essentially PostScript—the basic language structure of PostScript.

When I left Evans and Sutherland and went to Xerox, I said "This was such a good language, I'm going to reimplement it." So I rewrote the code to make PostScript work; it was called JAM at Xerox. I made the code work at Xerox and we used it as a prototyping tool to study both laser printers and interactive displays. And so we built applications

Adobe's John Warnock: "Our experience at PARC taught us that businessmen buy graphics for the 500 years of graphic arts tradition; in other words, typeset documents, headlines, line thicknesses and weights and endings, halftones. In other words, the 500 years of graphic arts tradition is what business really needed."

that used this tool, people liked it, and then Xerox said, "We need the next generation page description language, we need the next generation printing protocol." "Well," I said, "use this." And the other major members of the design team said, "We agree." We then modified the basic language into the thing that is now know as Interpress. Interpress looks very much like PostScript at some level. I thought Interpress was made too complex in that process. So when we left Xerox, we actually started with the original form which we name PostScript.

But at Xerox, we hadn't solved the font problems, the font scaling problems. And so, that was one of our first year's agenda—to figure how to scale fonts; and we made some breakthroughs. Got our act together, and it worked.

Did Adobe design typefaces for the first LaserWriter?

Adobe has done all of the typefaces for all of the LaserWriters. It was very important to us to license the original typeface names from Linotype and from ITC. "Times" has a lot of historical value! And especially when you get to things like "Optima," and some of the faces like "Univers" which are heavily trademarked. You don't want to have second-best kinds of names.

Did you have graphic artists working with you at an early stage?

Oh, absolutely! Day one. And we got into the typeface business very early, very strong. So it sort of evolved from the first customers, Apple and Linotype to, now we're at about 29 or 30 OEMs. And there are 35 printers currently shipping and at the end of this year we will have completed development on 70 machines.

How many of those are color printers at this point?

Well, one is announced and there are a couple more in the works.

What kind of price points will we see?

They'll be coming down.

Good! (laughter)

It's pretty well known that Adobe typefaces look better at small and large point sizes because of the "hints" that are built into them. Has anyone raised a fuss because you have the hints and they don't?

No, everybody's developed their own set of hints. Bitstream has its own technology where it tries to build good looking stuff. URW has its own technology; Folio, which was just purchased by Sun, has its own technology. So, it's sort of funny. Once someone finds a path over the mountain, other people know the path is there. Whereas, before we had brought out the first set of products, it was commonly believed that it was an impossible task—that you could not make good looking typefaces at small point sizes.

How does the PostScript that we know and love from the fonts relate to Display PostScript, which is the big gleam in everybody's eyes these days?

Well, it has exactly the same imaging functionality—there's no difference in the imaging model. Where it has been extended is—interactive applications have to have the requirement of replacing stuff on the screen very quickly, of changing contexts very quickly, of going from here to here to here under different circumstances very, very quickly. Managing memory, so I can allocate memory and have a garbage collector come by clean up after me. And it's those kinds of things that have been added to Display PostScript. So, fundamentally anything that can run on a printer will run on a Display PostScript system. And anything that's not interactive will run on a printer. So it's sort of the delineation of the real-time aspects of driving the display—that's really where the changes have been made.

Why would somebody want to go to the trouble of specifying Display PostScript for their equipment? What needs does it address?

Well, the look of the screen is entirely different. When you do a big font, it just sort of grows and looks beautiful. As it gets larger, each individual character is very pretty. It's like you have a photo-

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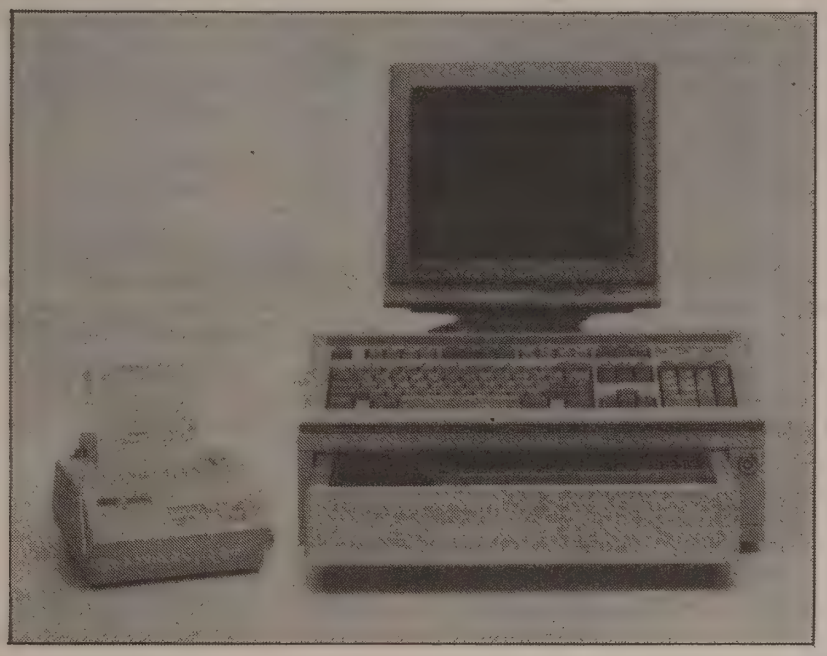

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graph, and as you zoom in and as line weights get thicker you'll see the lines get thicker and the mitred corners get perfect and everything is just really clean. It also gives you extreme device independence, in the sense that I can hook up a color monitor, a black and white monitor, a grey-scale monitor, and my application just works.

There isn't a lot of code dodging that the application programmer has to do to figure out how to get it to work over here, and then how to get it to work over there. He sort of figures out how to get it to work on an abstract thing, that may not be any display, and then it ports to anything. And so if I want to collapse a whole window down into a portion of the screen in one application, run another application, I can have two virtual screens, and they don't even know this stuff is happening. So the abstraction level is such that you have extreme flexibility within the operating system.

What kind of industries do you think will make the best use of this?

Well, I think over time it will become very widespread as machines get more memory, more processing power. Obviously, publishing is one area, CAD/CAM is another area where we have a great deal of strength; anything that has a lot of visual aspects to it. Information retrieval and dissemination, like if I want to have all the articles in a magazine available and I want to see them the way the *Wall Street Journal* printed it, then Display PostScript allows you to do that.

Is this likely to become a standard for on-line information services? For example, Prodigy uses NAPLPS. But NAPLPS is stone age compared to Display PostScript.

Yes, we talk to companies like Dow Jones.

Why hasn't Apple endorsed Display PostScript?

Well, Apple feels a requirement to own their technology and control their technology. They feel that their proprietary interests and interfaces are really important to their success. And if they had Display PostScript it would not be proprietary.

We had a problem not too long ago trying to open some PC EPS files on a Macintosh. It didn't work, which was a big disappointment; apparently there are several incompatible EPS standards running around the PC world.

It all should work. (laughs) I think it's coming together. Whether the applications read the most general forms is not clear. There are variations on the theme.

When Display PostScript comes around, all the little bitmaps that are captured will go away and you'll just take the file and execute it in a subwindow and it will re-render itself at the right resolution, and you don't get this funny squishing into a black hole kind of thing that you get now. So I think life will get better; it's never perfect, though.

I've heard that Display PostScript is a lot faster than printer PostScript, what's that due to?

Well, you're dealing with a lot less bits, for one thing. And we've optimized pieces of the code to do certain operations that are used in interactive manipulations very quickly. So we've optimized a lot of code. And yes, it will get folded back in.

Will we be seeing PostScript on a RISC chip anytime in the future?

Actually, we ported Display PostScript to the (IBM) PC-RT, which is RISC, and we've also ported it to the SPARC chip, which is on the Sun 4. Whether you'll see printer PostScript on a RISC chip—sure. We run a number of different RISC chip developments in house, and as those become economically viable and customers want to use those controller designs, we'll use them.

Where do Illustrator and its new incarnation Illustrator '88 fit into all this?

Well, I think they're sort of demonstrations by Adobe of what you can do with PostScript machines—plus being damn good illustration programs. So the goal was to have an application that uses the technology and shows what it can do. Also my wife was a graphic artist and she needed a problem solved, so we solved it. (laughs)

Well, the best products are user driven.

Yes, well this one certainly was; I used to have to ink.

You're out competing with at least a couple of companies that you support on the PostScript end, you're competing with Aldus and Micrografx. Is that a problem?

We try not to let it be. We try to sort of have it like Microsoft. Microsoft does the same thing—they have MS-DOS and the applications side. And we try and keep those sets of decisions very, very separated from each other. I mean, we're the friendliest guys in the world to Aldus.

Sun has some kind of Display PostScript system interpreter in their NeWS system. Does that make them a competitor in any sense?

They've implemented their own interpreter, I guess. I would rather have that kind of competitor than this Presentation Manager stuff. At least they're spiritually for the same purposes.

You're also in the position now of having all these people more or less rattling the sabres of their PostScript clones at you. What are PostScript clones? Are they clones? And what are the tradeoffs facing Joe Officemanager who's sitting there contemplating what to go for?

There are a lot. The thing is that I think PostScript machines now probably represent 30% of the laser printer market. That's a lot of machines and there are a lot of people who look at Adobe's financial reports and say, "Gee, it looks like there's a lot of money to be made in this business. Why don't we go out and replicate what they've done?" And so, at last count there were 70 clone activities going on, and they're at various stages of development. Some of them, in fact, are shipping product—finally. They've been threatening for 2 1/2 years now.

There are all kinds of issues that the user has to be aware of. If he wants compatibility, he has to evaluate that very carefully. Is it a robust product? Is it a reliable product? Does it hold up under *PageMaker* with use? Can I hook it to my Macintosh and just use it as a PostScript machine and not run into problems with my Linotype?

The biggest issue is probably the fonts. We have about 300 faces, and those faces won't work on those [clone] machines. So if I have a library of fonts that I use, I have to go rebuy that library to run on that clone machine. If I'm networking and sending fonts around networks, that may be impractical. So that's one of the biggest obstacles.

Other things... does it produce the quality of fonts at low resolutions that ours do? If you really sit down and go over the fonts with a fine-toothed comb, are they producing the right stuff? All of our machines, all of these 70 machines, are built from one set of source codes. So they're consistent, and consistent to a very high level. Also our implementations of the communications protocols are very robust, whereas one of the problems everyone's been having is printing through Appletalk. So, those are the issues.

Adobe's John Warnock: "Programs are very sophisticated now. Programs that you can buy for 500 bucks now used to cost $150,000. When *Illustrator* was first announced, the competition in that category was $50,000 and $100,000 programs. But I'd rather sell it for $500."

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In the IBM world, the ROM BIOS was duplicated almost instantaneously by a number of companies. And it's gotten to the point where a clone BIOS is very compatible. But it's taken 2 - 3 years for these people to duplicate what you did with about half a dozen people in a year and a half. What makes PostScript so hard to clone?

It looks deceptively simple. I mean, most programmers open up the red book and they say, "This is easy. I can do this." And so they'll start, and as a matter of fact they get 90% there very, very quickly. Get the language so it can add and subtract and multiply and do all of the things that the language does. And then they get to *SHOW*, and that starts to get a little tougher, and they get to *FINDFONT*, and then they start dealing with the screens and *SETSCREEN* and some of the harder operators, and they say, "Whoa, wait a minute. This is not so easy." And then they'll get their implementation to work, but it will be disastrously slow. OK, then they'll say, "Well, throw hardware at it."

Some think communications will be easy, so they take AppleTalk for granted.

How big a problem to Adobe's general future plans is the current memory problem? Because PostScript would like lots of memory. It would be very happy if it had a gigabyte to play around with.

Oh, it sure would. You have to make the assumption over the long term that memory prices will go down. In the short term they're not. Apple raised their prices. So, the memory availability is hurting our smaller customers, because they just can't get RAMs.

People's complaints about PostScript are that it's slow and it costs a lot. You can get a LaserJet for about $1,600. I'm under the impression that Adobe's licensing fees aren't anywhere close to representing the difference in cost between a PostScript printer and a LaserJet.

No, the cost comes from two things. One is that if you have 35 faces, the typeface royalty fees are non-trivial—that's a lot of typefaces. PostScript royalty, with volume, goes down, so that in large volumes it's somewhere sub $100.

There has to be a fair amount of memory on board; the board has to have a fairly good processor on it. And the board cost is a component of the difference, the typeface royalties are a component, the PostScript royalties are a component. And the fact is that the margins are there—it's not a terribly price sensitive market. Apple sells all the LaserWriters it can make.

What is brilliant about HP's strategy, and this is a stroke of genius, is that they made the minimal machine—really the minimal sort of silent daisy wheel. Does Courier 10, and that's about it. So you can buy that for $1600; a customer can get comfort knowing that they own a cheap laser printer.

If you start then to do any of the desktop publishing, start buying fonts and the extra RAM you need to download the fonts and all of that stuff, you're very quickly up to $4000. Because what happens is the dealers very deeply discount your basic LaserJet but charge full list on all of the upgrade features. And they're getting their margins out of the upgrades. They're not getting their margins out of the basic machines.

And that's brilliant, because a guy goes in and he says, "I want to buy a LaserWriter." They say, "Buy a LaserJet, $1600. Oh, but if you want to print anything, you have to add all this stuff to it." It gets very quickly up to $4000. Everybody intellectually understands this. But they still behave as if LaserJets are cheap or something. They're really not.

It seems as though the LaserJet is pretty well entrenched in the IBM world and a lot of people don't really understand what PostScript is. What will you do to educate them?

Well, *PC Illustrator* is one thing. Actually, the next version of *Lotus* has a really good PostScript driver in it. I'm hoping the next release of *1-2-3* will help.

Whenever it comes out.

The only thing we can do is slug away as is for a while. Large corporations now understand the benefits of PostScript—like Boeing doesn't buy LaserJets.

Are there particular challenges moving PostScript from a Macintosh environment to a PC environment?

Moving *Illustrator* from a Mac to a PC was an enormous challenge. The 640K limit was horrible. The fact that *Windows* takes up a lot of space—you're trying to get an elephant in a shoebox.

And make it dance at the same time.

Right. And that was a very, very difficult task. I'm really pleased with the performace of the PC version. It was announced today and will be shipped by the end of the year. So we're very pleased with that. Display PostScript needs at least a 386 machine and, as Steve [Jobs] said this morning, a couple of megabytes of memory. So there is an inherent cost in getting that kind of functionality.

How highly do you think the success of Display PostScript is tied to the success of the NeXT machine? That will be the first platform.

Not very.

Do you see the NeXT machine as a good evangelism tool?

Oh, *YES*. It's all I could have ever dreamed of.

Is it truly beautiful?

It is truly beautiful!

One of the things happening in the micro world is that the micros are moving up, and the engineering workstations and the UNIX boxes are moving down, and there are some very interesting little clashes that are happening as that's going on. How does Adobe fit in to all this? Because it seems like Adobe is very strategically positioned to take advantage of this.

I hope so! It was pretty clear that that was going to happen for a long time now, as processors got faster and as soon as you broke the fundamental memory barriers that were holding those things down. There is this fundamental appetite for memory. If the operating system lets you grow without bounds...

So will programmers.

Programs are very sophisticated now. Programs that you can buy for 500 bucks now used to cost $150,000. When *Illustrator* was first announced, the competition in that category was $50,000 and $100,000 programs. But I'd rather sell it for $500.

What do you think of this quest for what's essentially the Macintosh front end and a UNIX back end, which is what Open Look is trying to do, OS/2 and Presentation Manager are trying to do, and Apple is trying to do with A/UX?

I think they're all trying to get there. The question is, who's going to get there with the nicest thing. It's all right-headed thinking. You want more sophisticated interfaces and better tools to insulate the user from the grunginess of the operating system.

Would PostScript offer any advantages in this situation?

Oh, sure. Consistent imaging model between the display and the printer is really a big deal.

Are there any UNIX machines that PostScript graphics are currently running on?

There's Sun's implementation of NeWS... No, there really isn't, except in our laboratories. Actually, NeXT will be the first Display PostScript platform.

Adobe's had phenomenal growth over the past two years. As an organization, what kinds of challenges do you face?

Growing is very hard. Assimilating people, completely restructuring. 250 or 260 people is a lot, in a lot of companys' terms. Sun is now at something like six or eight thousand.

Four thousand of whom were hired in the last year.

That's right. That's literally true.

The problem with software companies is that we're very highly leveraged and we run a very tight ship. We have to have each piece knowing what the other is doing. We just can't grow and not keep control of the whole growth path. The nifty thing about Adobe is that everyone has a sense of owning a piece of the product. Everyone participates in producing these things, whether it's *Illustrator*, or the typefaces or the printers. There is a great deal of pride in the group. We've had a huge effect on the printing and publishing industry. Everyone gets a big kick out of it —that's the good part about it.

Have you felt like you've had to pull back from being really hands-on?

Actually, I've reverted. You have to keep all the communication going as much as you can. The job is communicating, rather than directing.

What does Xerox think of all this? Are they sitting back there, tearing their hair, saying, "Why did we let all these people go?"

Well, I don't know. It's very hard for me to put my head in their head. Every time I do—well, you could go crazy! □

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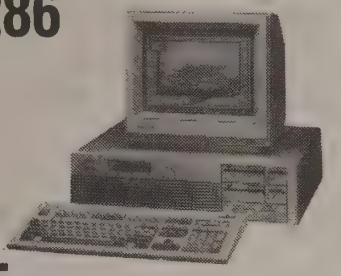

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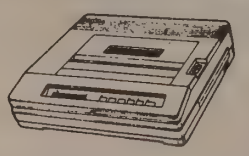

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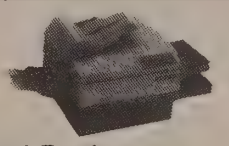

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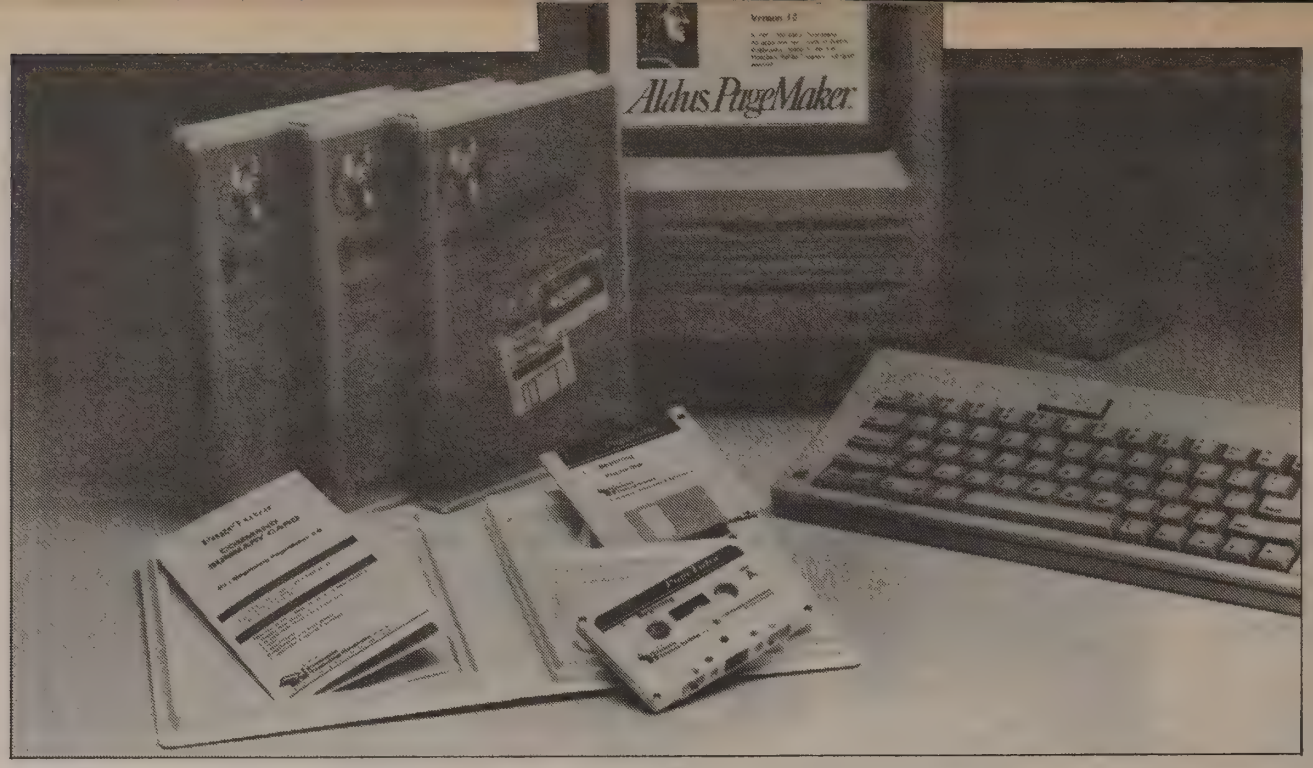


PTS chooses one package in each application category to support with training packages. Shown here: PageTutor, which teaches PageMaker 3.0 skills.

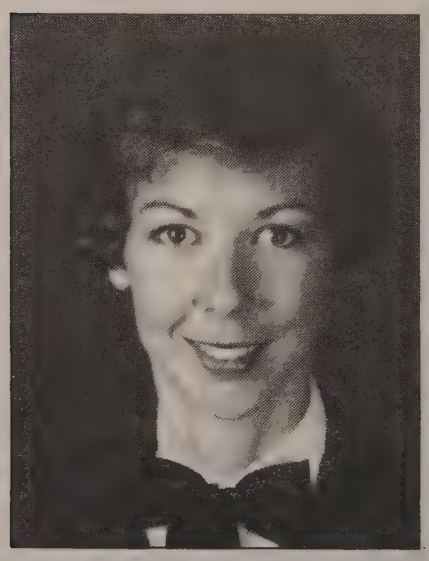
Personal Training Systems: Macintosh Training For The Business User

By Tony Rocco

Not long ago, no one thought training for the Mac was necessary. The computer "for the rest of us" was so simple and brilliantly designed that it required very little formal instruction to use. And the software—MacWrite and MacPaint and such—anyone with the smarts of a tomato could pick those up with a few hours' work and a manual that could be read in less time than it took to check Sunday's football scores.

Not so today. The computer "for the rest of us" is becoming the computer for serious business applications, professional publishing, award-winning graphic design. Although even the new-fangled Mac II can be learned a lot more easily than anything Big Blue or its minions have brought to market, the software has made warp factor leaps from MacWrite simplicity to Illustrator '88 and Excel complexity.

Enter Personal Training Systems. With an early sense that the Macintosh wasn't destined to become a plaything for the masses, Susan Barton, a computer consultant and trainer, began making training packages for increasingly complex—and business oriented—Macintosh software from vendors like Microsoft and Aldus. Having an understanding of training and the shortcomings of products already marketed in the field, she began producing interactive learning packages consisting of on-disk exercises and step-by-step learning tapes.



Susan Barton founded Personal Training Systems in response to the burgeoning need for self-paced modular training packages for Macintosh applications.

The idea took off. Today her company's patented learning packages, which sell in modules for about fifty dollars each, are in high demand. About 50,000 of them are already out there. Software vendors are clamoring for training packages for their new products. Consumer demand is increasing at a rate of about 25% a month. With PTS poised to enter retail outlets from coast to coast, and make foreign agreements with Apple Australia and Apple Europe, MicroTimes interviewed Susan Barton about the past and future of Personal Training Systems and the Macintosh.

What do you find lacking in other self-paced training lessons?

The main component that they lack is participation by the student. Most of them have you passively sit there and watch, or passively sit there and listen, for quite a long time; then you turn off the training materials and go over to the computer and try it. What we've found is the retention rate for that kind of training for an hour long training session on a video, at best, is about 20%. That is one major problem.

I've found in my experience that the best way for someone to learn something complex like *Illustrator* is to find someone who already knows it. But I don't want someone just showing me. I want my hands on the keyboard with someone telling me what I need to know. And I want to try everything while he is still there so I know how to do it. So all we did was capture that kind of training session on tape.

That's why we have very "low-tech" equipment, with you actually sitting in front of the computer and doing, seeing and running all at the same time. You're actively involved. Your retention rate with our type of system is up in the 80% range. There's too much to learn about a computer system to watch for a long period of time and then go try to do it.

What kinds of products were out there when you got started?

There were a range of products. Video is a very popular training medium that I don't think is very

"I don't want someone just showing me. I want my hands on the keyboard with someone telling me what I need to know. And I want to try everything while he is still there so I know how to do it."

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effective. There were some audio products as well, but none quite like ours. What I did was look at all these different things and come up with ideas on how we could do it better and more effectively. And the synthesis of all of that is the product we've built.

Why is your tape method superior to following the steps in a written tutorial?

What we've found is that they are a good start. Even if a tutorial is 150 pages long, it usually goes into just a very few of the features. By the time it gives an explanation of it, a screen shot of it, a few step-by-steps, you've learned just very, very basic material. They give you a basic introduction and then they stop. What we try to do in our training is show you everything you need to know from start to finish without picking up the book, and go a lot farther than any tutorial.

Our courses are short, they're only ninety minutes long, but they're at different levels, beginner, intermediate and advanced. We designed them so that if you're going to be a casual user, beginner is all you need. But if you want to become a powerful user, you can go on to the other levels. And we teach you 90-95% of what a program can do.

People seem to resist books and manuals, don't they? What's the problem there?

I find that you're right, most people do not want to read books or manuals. Especially Macintosh users. We're the only training company dealing only with the Macintosh, so I understand Macintosh users. Macintosh users hate to read books. One of the things that attracted them to the Macintosh in the first place was its ease of use. On the other hand, if the Mac is so easy to use, why do people need my training?

I was going to get to that.

Initially when I looked at the Mac, *MacWrite* and *MacPaint* really did not need the type of training I had in mind. The machines became more powerful and software vendors began writing software to take advantage of that power, with the result that the software is a lot more capable, but it is also a lot more complex. In beginning Macintosh programs, you could poke around the menus and figure quite a few things out about the program. Today, there are so many hidden shortcuts and tools that you just can't figure out everything by looking at the menus. You might take advantage of only 10% of what the program truly can do.

We provide training for those high-end business packages that really do need training to get you up to speed quickly.

Why should a business buy your tapes rather than have someone come in and conduct a class? How is it more cost effective? How is the learning any different?

The learning is quite different. If you bring somebody in, and I used to be brought in so I'm very familiar with that, many companies don't have a training room set up. We've got to take people's Macs away from their desks, set them up in a special room because you certainly want to train more than one at a time if you are paying high rates to bring someone in for training. You have to get everyone who wants to be trained on a particular package together at one time. That's one of the problems; if you have a company of 100 people, and 25 of them use Macs, chances are pretty good that they're all going to want to learn different things, and that they'll be at different experience levels. It's very, very difficult to teach a class if this person has never seen a Mac before, and this one wants advanced *PageMaker* training, and that one doesn't really care about *PageMaker* at all but wants *Excel*; and that person needs Microsoft *Word*.

So one of the problems of bringing training in-house is that you have to find enough users who want training on the same thing, who are on the same level, and you need a room, and you need the Macs. And then the quality of the training is only as good as the person you hire. Some people are very, very good Mac users and terrible trainers. Say you do bring someone in, pay him $600 to $1000, have him train six or eight people, and then you hire somebody new next week. You've then got to either bring the trainer back in or send the employee out.

With our courses, because you can use them on your own and we have so many different levels to choose from, even if you do have a whole room full of Mac people, it's great, they don't all have to be at the same level.

What about the interaction you have with the instructor? Isn't that an advantage?

That's an excellent question. That's the biggest potential drawback of any self-paced training: what if you need help? For one thing, we offer free, unlimited telephone support. But with over 50,000 packages out there, we only average six to ten calls a week. The reason is that we thoroughly test our courses before we ever release them.

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Mitsubishi Multisync.....$520
NEC Multisync.....$575

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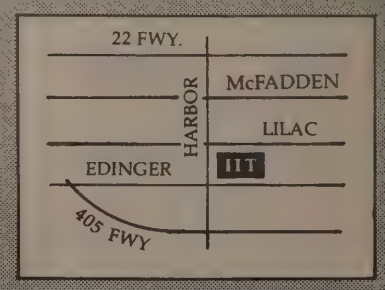
Panasonic 1081 i II.....$185
Star NX1000.....$195
Epson.....CALL



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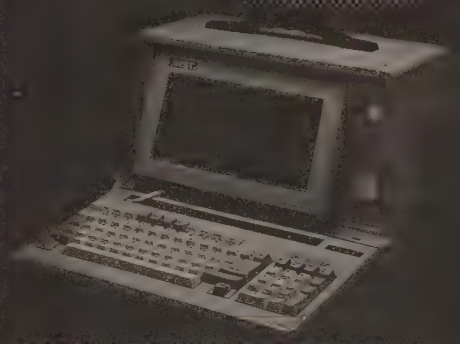

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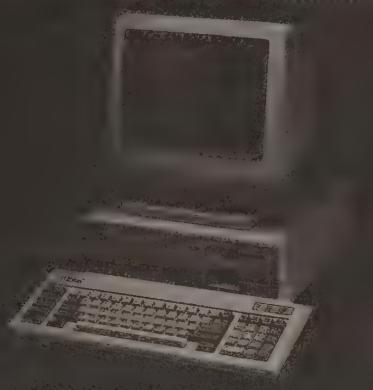
$1600



VTI-33 SYSTEM

- ☐ 8088-2 10 MHz
- ☐ **640 K RAM**
- ☐ 2 360K Floppy Drive
- ☐ Serial, Parallel Port
- ☐ Clock, Calender
- ☐ AT Style Keyboard
- ☐ Build in Mono/Color Graphic
- ☐ **MONO MONITOR**
- ☐ MS-DOS 3.3, GW Basic

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COLOR SYSTEM $919

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- ☐ 512 K RAM
- ☐ One 1.2 MB Floppy Drive
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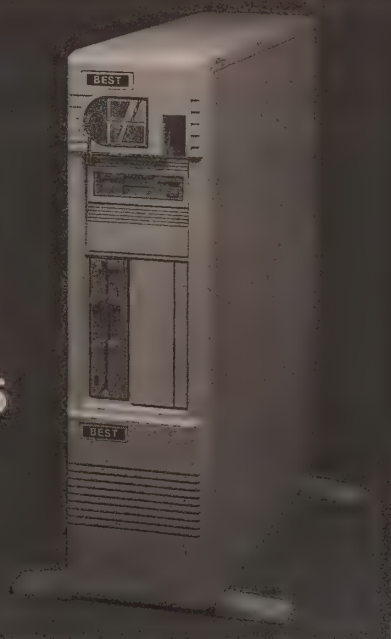
BEST-88 PORTABLE $845



386 SYSTEM

- ☐ 16 MHZ 80386 CPU 8/16MHZ
- ☐ 20 MHZ (Option)
- ☐ 80287 & 80387 Socket
- ☐ 1 M RAM
- ☐ One 32-bit, Five 16-bit, Two 8-bit Expansion Slots
- ☐ 1.2 M Floppy Drive
- ☐ WA2 or NCL Control Card
- ☐ 3.5" Drive (Option)
- ☐ Tower Chassis

$1995

VTI-55 SYSTEM

- ☐ 80286 **12** MHz
- ☐ **1 MB RAM**
- ☐ 1.2 MB Floppy Drive
- ☐ **30 MB** Hard Disk **(28 ms)** with NCL Controller
- ☐ 2 Serial 1 Parallel
- ☐ Clock Calender
- ☐ 101 Enhance Keyboard
- ☐ ATI EGA Wonder Card
- ☐ EGA Monitor
- ☐ MS-DOS 3.3, GW Basic

$1799

MONO SYSTEM $1499

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10 MHZ	$265
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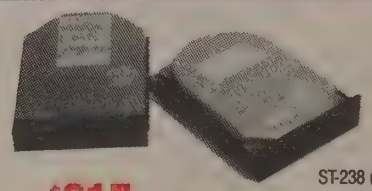

$215 ST-225

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ST-251-1 (40MEG - 28ms) . . $430
XT hard disk controller..... $52
AT Hard & Floppy Controller . $109

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includes:
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30 MEG **$845**

AT SYSTEM 1200D

(12MHz 80286 AT)

includes:
1MB Motherboard with 512K RAM, 1.2MB Floppy, Combo Hard & Floppy Controller, Hercules Compatible Graphic Card, 40MEG Hard Disk Drive, Enhanced 101-Key Keyboard, Hi-Res Mono Monitor and Keyboard. Case with DIGITAL Turbo Display.

40 MEG HARD DISK **$1495**

(SYSTEM 1600D - 16MHz 80286-16 is also available)

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60 MEG - 80386 - 20 MHz

1 MB RAM (80 ns), 1 Serial Port, 1 Parallel Port, 1.2 MB Floppy, 60 MEG Hard Disk, 101 Keyboard, Phoenix BIOS

66 MB - 28 ms

1:1 Interleave Controller

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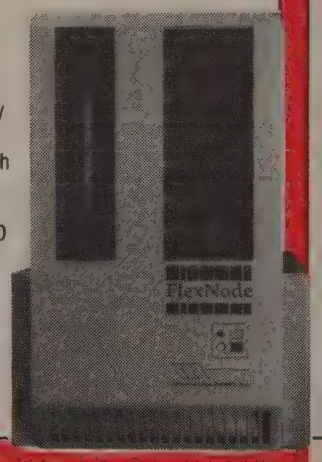

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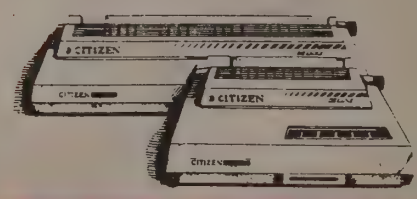

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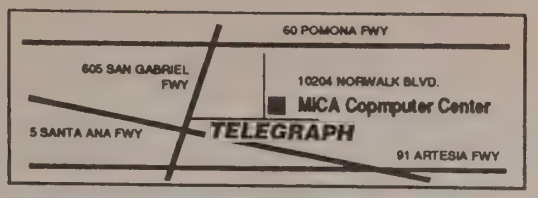

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And we do that several times. We do the initial course writing, we bring people in and test it over and over again 'til we stop hearing new comments. Then we do a major rewrite of the course. Then we bring in another group. And we put them through until we stop hearing their comments, do another rewrite, and repeat that process until we bring 10 brand new users in that can go through the course without any questions. And they can complete the exercises. Then we know the course is clean enough to release.

What are your most popular tapes? What do businesses want the most?

We don't have one runaway winner. *Excel* is popular, but so is *Word* and so is *PageMaker* and so is *Illustrator* and so is *HyperCard*. So are the Macintosh courses themselves. We develop courses only for the business market, or that we think will be very popular business packages. And they all seem to fare pretty well.

Why not make these kinds of training packages for the IBM market, the PC being a more popular business machine and a lot harder to use than a Mac?

A study shows that the average IBM user uses two to three applications; the average Mac user uses six to eight. If I was trying to sell training to an IBM person, if he had two training copies, he'd be done. The Mac user has much broader needs. Plus, I've been in love with that machine ever since it came out. I'm one of those Mac fanatics.

Are your learning packages having an impact on gaining more acceptance for the Macintosh in the business world?

Yes, I think so. But more importantly, the software vendors think so. Almost all the major software vendors are coming to us and saying, "Please do training for our package." If they have a training package, they have a competitive advantage the others don't. I don't know if you noticed, but we only do training on one software package per category. We only have one word processor, one desktop publishing package, one drawing program, and so on. We pick the best product in each market and support it.

The software vendors are doing a lot of marketing agreements with us to entice us to do training on their packages. For example, Aldus knows how successful our training has been helping with *PageMaker*. They recently asked us about six weeks before they announced *Persuasion*, saying we have this new product [a desktop presentation package] and would like to have our training available for it. They asked us how they could get us to decide to do training on their package.

Well, first of all, we thought it was a tremendous package. So we said we'd like coupons in each box. All the software we support comes with coupons in each box because the software vendors think so highly of our training packages. When Aldus announced *Persuasion*, they also announced that we were doing training for it.

"Macintosh users hate to read books. One of the things that attracted them to the Macintosh in the first place was its ease of use."

Have you or any software manufacturer thought about bundling your training packages with software?

We're working on it. We don't have any agreements yet.

Who are your competitors? I assume there are others out there making these kinds of training tapes.

No. We developed this approach. It is our unique approach. Manuals are a competitor. Classes are a competitor. But we're pretty much alone in what we do.

What applications do you plan to make training packages for in the future?

I can't talk about too many. I hate to preannounce.

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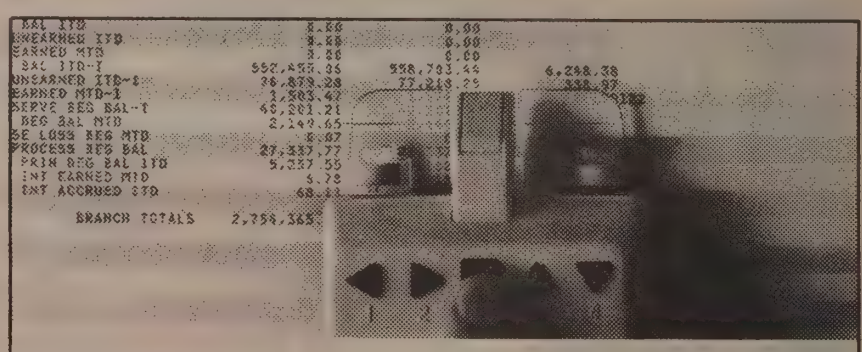

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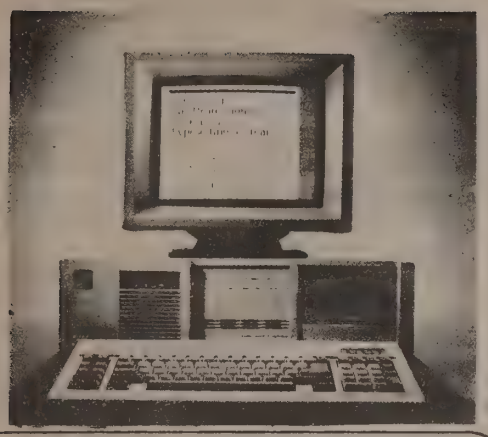

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- 1.2 MB FLOPPY DRIVE
- 40 MB HARD DISK
- 101 KEYS KB KEYTRONIC
- MONITOR

MONO SYSTEM	COLOR SYSTEM	EGA SYSTEM
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- DISPLAY ADAPTOR
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One of the things I personally don't want to be known for is vaporware. In the next few months, we're introducing the training for *Persuasion*. What we try to do is develop our training during the beta stage of the development of the software. We're upgrading *Works* because at Macworld Microsoft announced *Works* 2.0. We're upgrading for *Word* 4.0. That's all I feel comfortable talking about.

How about general categories?

OK. If you look at our existing offerings, you notice some major holes. For example, we don't have anything for database products.

FileMaker 4—would that be in there?

It's possible. It's certainly one we've gotten a lot of requests for. There are other holes as well. Desktop presentations is a hole; we're now filling it.

Have you thought about foreign versions of your lessons?

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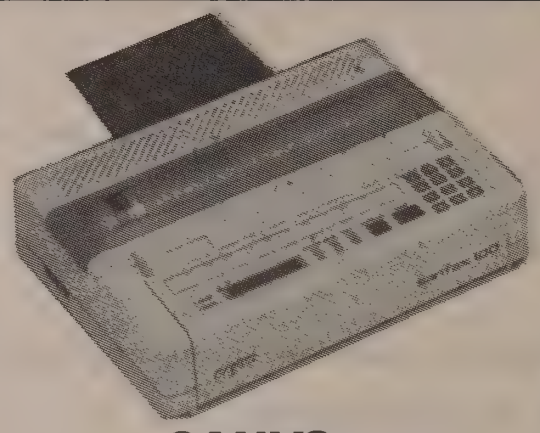

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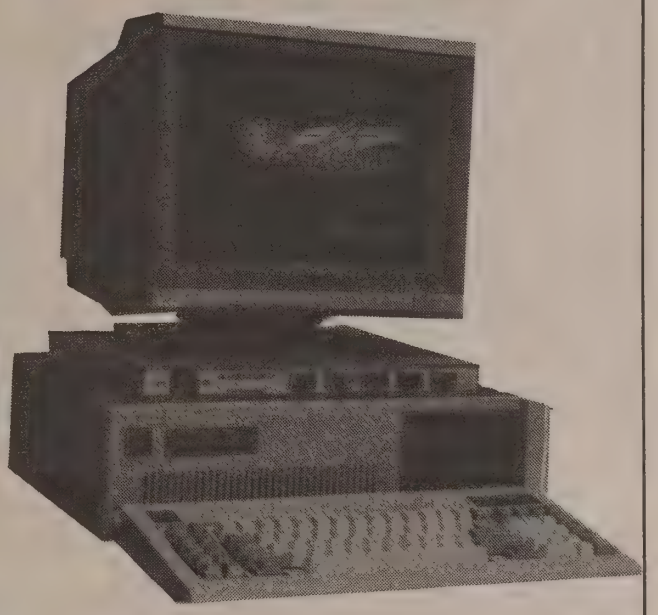

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MAC @ WORK

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dBASE Compatibility With Mac Accessibility

Foxbase+/Mac

By Steve Guttman

The great software migration continues. DOS applications are finding new homes on the Mac, and hot Macintosh software is surfacing on big blue boxes. We've seen *PageMaker*, *Omnis* and Microsoft *Excel* running on Intel chips. *dBASE* and *WordPerfect* have finally learned about icons. And the latest defector is *Foxbase+/Mac* from Fox Software.

Foxbase first surfaced several years ago as a *dBASE III* clone that outgunned the original. Foxbase's speed, language implementation and thoughtful *dBASE* extensions were persuasive enough to earn it *PC Magazine's* Editor's Choice accolades in their May database shootout (honors it shared with *Paradox* and *R:BASE*). And along with Nantucket Corp's *Clipper*, Foxbase has been widely accepted in the PC world as one of the few top quality *dBASE* substitutes.

The Foxbase View window contains ten circles representing ten dBASE work areas and provides status information on them.

Foxbase+/Mac is Fox Software's first entry in the Macintosh database wars. Although relatively venerable programs like *4th Dimension*, *FileMaker*, and *Omnis* have carved out their own niches in the Mac market, *Foxbase+/Mac* brings a new and very powerful capability to the Macintosh: complete *dBASE III+* compatibility.

Now, *dBASE* compatibility may not be the most exciting thing in the world to you; it certainly isn't why you bought your Macintosh. But 60% of the PC world speaks *dBASE*. Millions of lines of *dBASE* code have been written, and enormous *dBASE* databases have been created. *Foxbase+/Mac* lets users take these programs and databases and run them, without modification, on

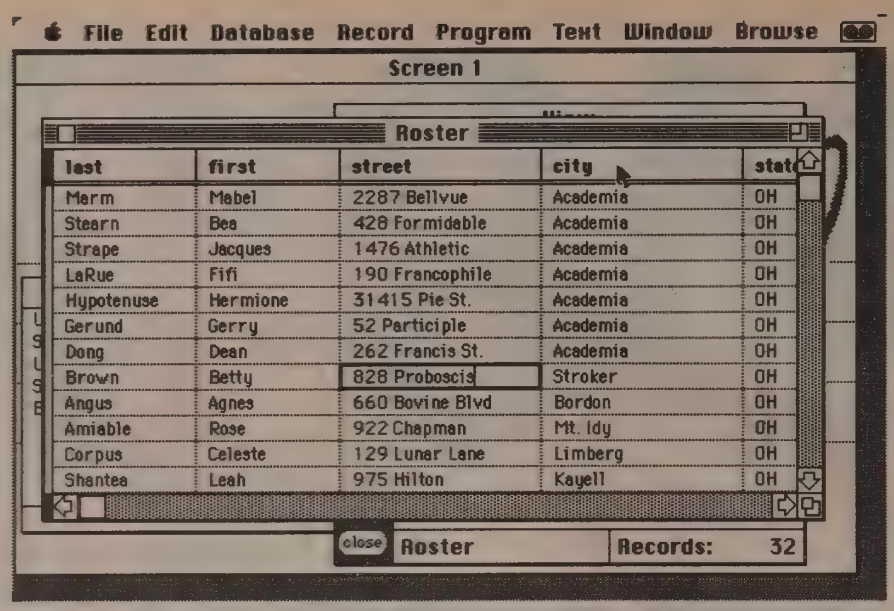
Mac Pluses, SEs and IIs. Not even *dBASE Mac* (which can read PC *dBASE* databases, but not programs) can boast as much.

But the beautiful thing about *Foxbase+/Mac* is that Fox Software has taken a program with a standard, but rather bland, PC interface and turned it into a real Mac application. They haven't thrown away the concepts behind DOS *dBASE /Foxbase*. Instead they've preserved the definitions and relationships between all the different database elements. But they've come up with visual paradigms to express these ideas. *Foxbase+/Mac* lets you see what you're doing.

For example, in standard *dBASE* you can open up to 10 separate work areas. These work areas have pointers to open database files and their associated index files. If you've forgotten which database files are open, you issue the Display Status command which returns statistics on the open work areas. In *Foxbase/Mac* you simply look at the View Window. This window contains ten circles representing the ten *dBASE* work areas. When linked to a database, a work area is filled with a book symbol that displays the name of the database. If index files are also opened, a hand with extended index finger crosses the book.

Now, DOS *dBASE* is both an interpretive and a programming environment. The interpreter features a simple command line on which *dBASE* directives can be typed and executed. It's a no-frills interface, but one that's fast and easy to use. A *dBASE* program is simply a collection of *dBASE* commands contained in a file or set of files. To execute a program, you simply type "DO Program" within the interpreter or "d*BASE* Program," at the DOS command line. While the language primarily deals with the manipulation of database elements like fields and memory variables, it does contain some basic screen formatting commands like the ability to draw boxes, change screen colors and output text at a specified screen position.

Despite the vanilla flavor of the interface and language, it does have certain advantages. For those on familiar terms with *dBASE*, it's fast and flexible. For those aficionados of the DOS-style interface, *Foxbase+/Mac* has a facility called the Command window in which *dBASE* commands can be entered and executed in the same style as the PC version.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Screen 1
Roster
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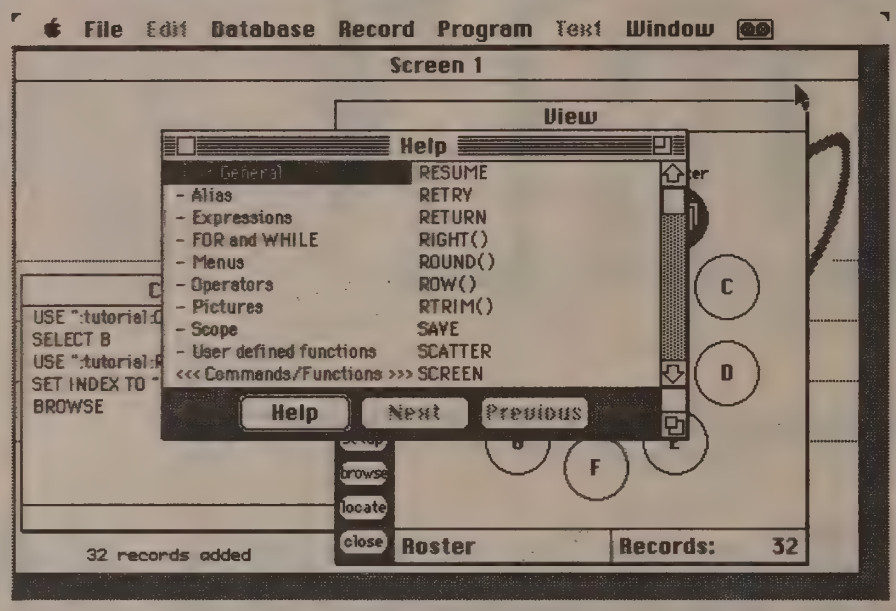
close
Roster
Records: 32

Foxbase's Browse window lets you interactively scan and modify an open database by opening a scrollable window showing its fields and records.



Foxbase's Help facility comprises a database which can itself be customized and incorporated within your own programs.

Beyond dBASE Compatibility

But those who only stick with the Command window won't be testing the real power and Mac-like qualities of the program. *Foxbase+/Mac* has five additional built-in windows which give the program great versatility. The Browse window lets you interactively scan and modify an open database by opening a scrollable window showing its fields and records. You can rearrange the order of fields using a "grabber" hand or, split the window so that you display the fields you are interested in.

The expression builder is a mouse driven way of constructing any kind of conditional clause, to locate database records fulfilling certain criteria., for example. You could conduct this kind of search by typing "locate for year > 1984" in the Command window (where year is a database field name). Alternatively, you could pull down the Record menu, choose the Locate command, and then select the "for" option from the dialog box. The expression builder (see figure) pops up allowing you to choose the field name year from a scroll box and the logical expression > from the "logical" pop-up list. While those familiar with *dBASE* will find this a cumbersome process compared to using the Command Window, it's an effective learning tool for novices.

The Trace and Debug windows are incredible time-savers for programmers. In trace mode, you step through a program a statement at a time. As it's executed, each line is displayed in the Trace window. You can configure *Foxbase+/Mac* so that both the program output and the Trace window are visible at the same time. Thus, you can easily discover and remedy problems in your program. The Debug window lets you monitor the value of variables and expressions. In addition you can set breakpoints which suspend program execution when a logical condition becomes true or the value of a variable changes. These features make *Foxbase+/Mac* a complete programming and debugging environment, unlike DOS *dBASE*, *Foxbase* which has limited debugging capabilities.

I converted two medium sized (about 2000 lines each) *dBASE* programs to *Foxbase+/Mac*, and both ran without problems. Note that none of the Mac system fonts includes the IBM extended (i.e. line drawing) characters, so that you may have to make some adjustments to your code (or use a different font) if you like to draw anything more sophisticated than boxes. Also, the IBM screen typically displays a white pixel on a black background, while

In addition to including the rudimentary screen control commands that insure compatibility with the DOS version, Foxbase+/Mac has a wealth of Mac-specific features which can make your programs truly look and feel like Macintosh applications.

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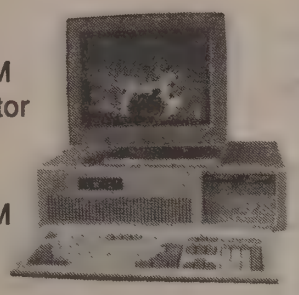

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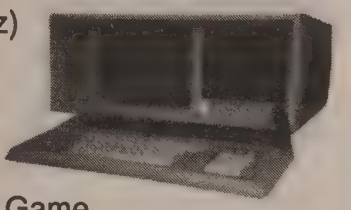

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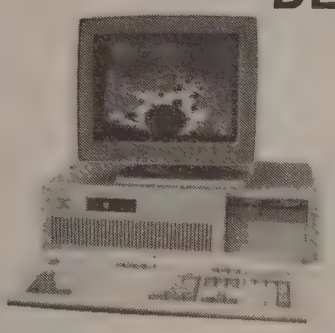

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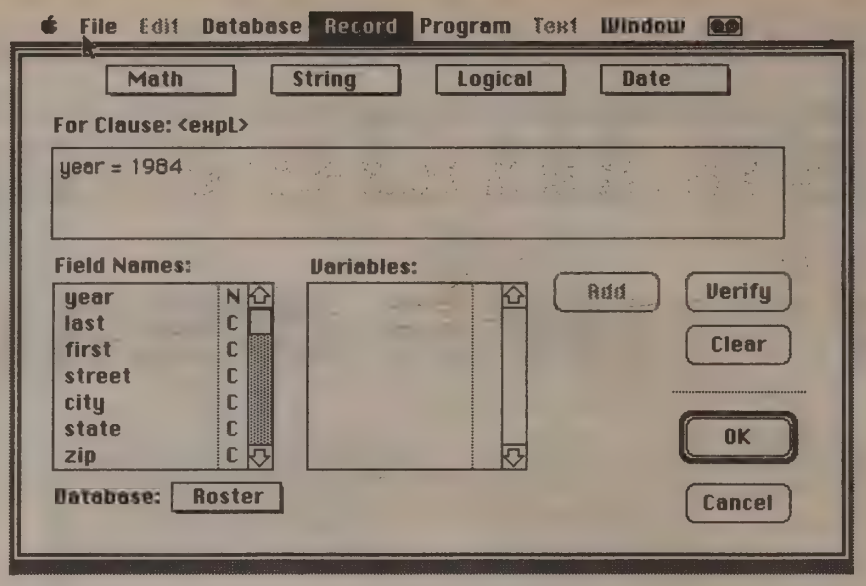
the normal Mac display mode is black on a white background. So, you may have to fool around with your foreground and background colors until you find an aesthetically pleasing combination.

In addition to including the rudimentary screen control commands that insure compatibility with the DOS version, *Foxbase+/Mac* also has a wealth of Mac-specific features which can make your programs truly look and feel like Macintosh applications. *Foxbase+/Mac* has the ability to display and store bit-mapped graphics in PICT format. These graphics can be resized or cropped for use in your application programs. Programs can access a variety of different windows types—scollable, movable and resizable. You can also use radio buttons, picture buttons and check boxes. In fact you can even use a stored graphic as a picture button.

Fonts are also well supported by Fo*xbase+/Mac*. You can mix fonts to your heart's desire within your programs and even customize the different windows within *Foxbase+/Mac* to display different fonts.

Foxbase+/Mac's help facility is also outstanding. Help itself comprises a database which can be customized and incorporated within your own programs. Like all the user windows, the Help window can be resized. But it also includes a word-wrap feature which adjusts Help explanations to the width of the help window.

Even with all these features, *Foxbase+/Mac* is extremely fast. Although I didn't get a chance to benchmark it against any other Mac databases, my impression was that speed, which was the hallmark of its DOS heritage, has been carried through to the Macintosh. I suspect you'll have a hard time finding a database that beats it.



The expression builder is a mouse-driven way of constructing any kind of conditional clause.

Foxbase+/Mac comes with two manuals: a tutorial and a general reference. The 13 lesson tutorial gives a comprehensive introduction to using the program, but is aimed at beginners. It gives very little guidance to those interested in programming, and in particular, says nothing about its Mac-like programming commands. Those interested in programming are better off consulting one of the multitude of dBASE books. The general reference manual is only adequate. It gives a fairly good command and function summary, but I found some of the explanations a little confusing, and I had to do a fair amount of searching to find information on a number of topics.

Fox Software has accomplished two noteworthy feats with *Foxbase+/Mac*. They've taken the *dBASE* standard established on the PC and translated it to the Mac, insuring that it will run existing *dBASE* programs and databases without modification. This opens up a whole universe of existing, commercially available *dBASE* code to the Macintosh world. Any database application you'd like to design probably exists (at least in part) in published *dBASE* . For PC users of *dBASE* who also use the Mac, this comes pretty close to must-buy software. But Fox Software has also turned a PC standard into a real Mac application. And their fast and well designed program should make it a serious contender for the portfolio of those who cut their teeth on the Mac as well. (Fox Software, 118 W. South Boundary, Perrysburg, Ohio 43551, 419/874-0162. Suggested retail: $395.)

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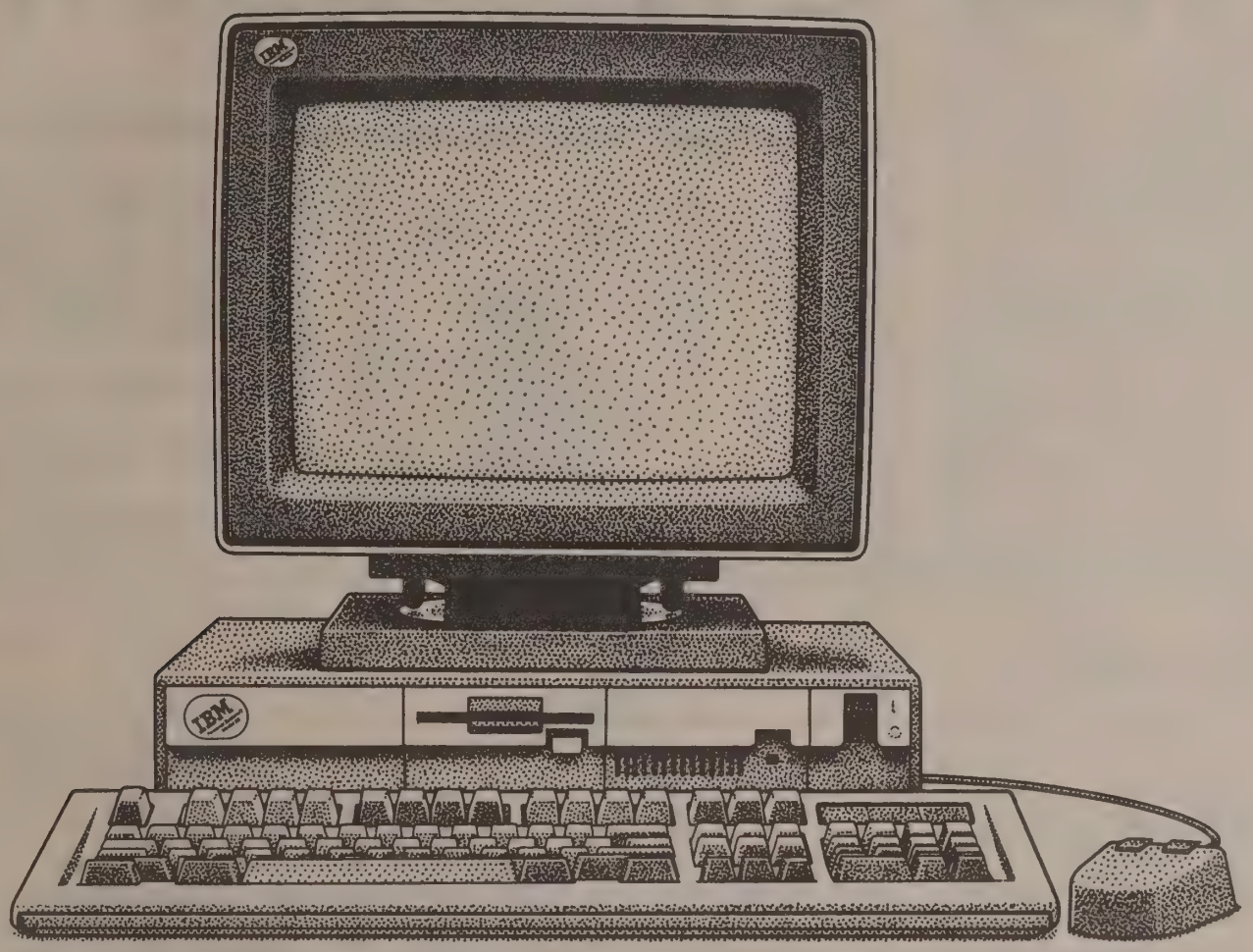

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The Hyperbook

In the last few weeks I have seen two examples of a whole new thing under the sun. It is the hyperbook: *HyperCard* used for a purpose that once belonged only to print.

This form of publishing makes *colossal* economic sense. In paper publishing, you write, then illustrate, then typeset or electronically compose the page. Then you must print, bind and distribute the result. When you produce a hyperbook, you write, illustrate and compose the document in the same program—*HyperCard*. Then you can make copies of the disk as the orders come in. The marginal cost per sale is one disk, some shrinkwrap and mailing. Marginal indeed. It's small enough to let people get into publishing who could never get started in the print business.

Draw The Kid A Picture

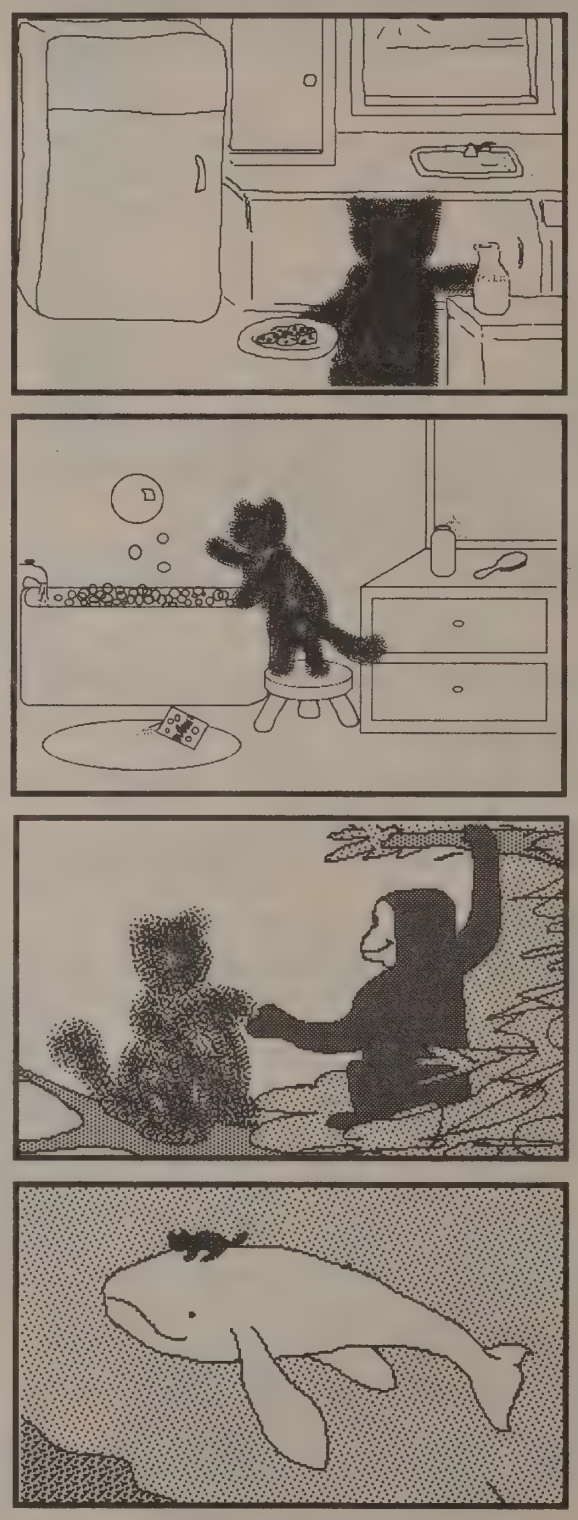
Amanda Goodenough is charming and the founder of the hyperbook industry. She wrote a set of stories about the black cat Inigo. Apple has used the first of them as a demonstration for *HyperCard*. You can get all four as *The Amanda Stories* for $19.95 from: The Voyager Company, 2139 Manning Avenue, Los Angeles, CA 90025. 213/474-0032

She wrote the Inigo stories for children—her own, I believe—and they will charm kids. They move between scenes by clicking on various parts of the picture until something happens. They might click on a door to have Inigo go through it, or on a tree to have Inigo climb it. The stories have almost no words, so even the youngest child can follow them.

Because you, the user, choose what is going to happen, and because you are physically involved, you find that you cannot give up one of the Inigo stories until the last card has turned. Adults become as enthralled as children, clicking on the screen to move the cat through adventures. As in all hypertext, the stories branch. You can send the cat one way one time, and another on a second pass.

These stories are not very complex, but they certainly do suggest the future of the graphics-only hyperbook. If you have children, you will probably find yourself wanting to do a children's story of your own.

These stories address one of the markets for such books—the child. There are other markets for wordless books, though. One is the illiterate population. In fact, Drexel University's literacy program uses *HyperCard* to teach reading and writing to adult illiterates.



Amanda Goodenough's Inigo series is not only an instantly-accessible demonstration of the potential of HyperCard, it's entrancing to everybody from toddlers to seniors. Graphics in each screen provide buttons which lead to different adventures.

The cost of hyper-publishing is small enough to let people get into publishing who could never get started in the print business.

A third market for the all-graphics hyperbook is multilingual. You can design an interactive adventure—or instruction manual, or tour guide—for people who do not speak any language you know. With cartoons and scanned-in images, you can show people something instead of telling them.

Finally, you can do interactive comics in *HyperCard*. There may be text or not, but the freight will be carried by the graphics. There should be a lot of money in this market. If you want to get started in hypercomics, you should get the *Amanda Stories* for the scripts they contain. They were written by Dan Winkler, the developer of the HyperTalk language. They are protected, but I dare say one could find a way to view them.

The Hyperessay And Reference Work

Far from a children's book is *Hypertext For Beginners* by Servando Gonzalez. It may be the first real Hypertext essay for adults.

This multi-stack is about Hypertext, and it is *in* hypertext. It is a delight to navigate in this hypertext essay. Gonzalez is literate. His opinions are entertaining and well made. And there is no way to read straight through the stack. His linkages thread you all around the topic. You are very ready to understand his discussion of the disorientation a hypertext user can experience.

It has a very complete bibliography of the topic. It has a valuable list of 51 varieties of software that use hypertext (or something quite like it), where to find them and a short description of what they do.

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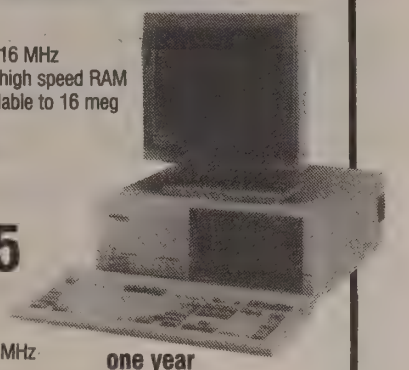

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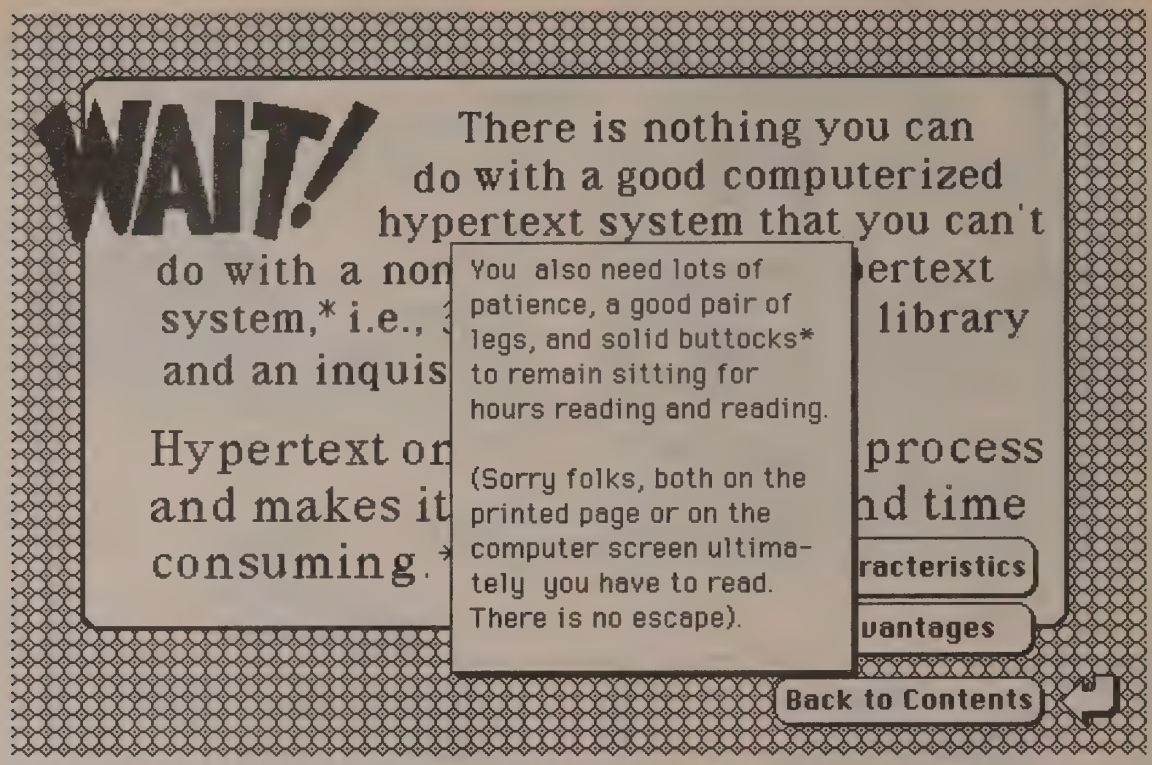
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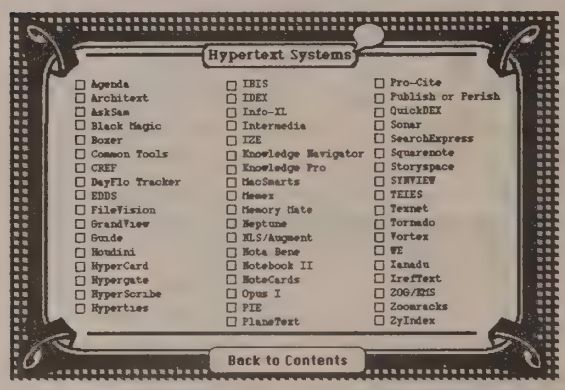

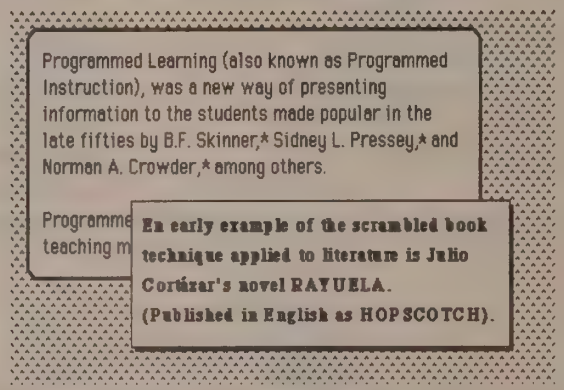
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An early example of the scrambled book technique applied to literature is Julio Cortázar's novel RAYUELA. (Published in English as HOPSCOTCH).

Hypertext For Beginners offers an interactive introduction to the world of links.

It has a biographical index of the people involved in the field—including Alfred Korzybski, founder of General Semantics. For the information alone you would be willing to buy this hyperbook.

If you are intrigued by the idea of Hypertext, you owe it to yourself to get this set of stacks. It will probably inspire you to craft a hyperessay for adults, as the Amanda stories will inspire you to make stacks for children. *Hypertext For Beginners*, for: $24.95. From: Intelibooks, Ediciones El Gato Tuerto, PO Box 210277, San Francisco, CA 94121

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We need a verb that means "to compose hypertext." Since the word "text" itself comes from a Latin root meaning "woven," let us borrow the metaphor and use the English word "weave." It conveys the utility, the beauty, the pattern and the idiosyncracy of hypertext.

Go forth and weave. And let us know what you have woven. You can leave messages, comments, praise and blame for stackware and *HyperCard* on the WELL (415-332-6106; user ID "birrell") or CompuServe (User ID 72466,3567) or by US Mail to: Birrell Walsh , PO Box 1104, San Francisco, CA 94141.

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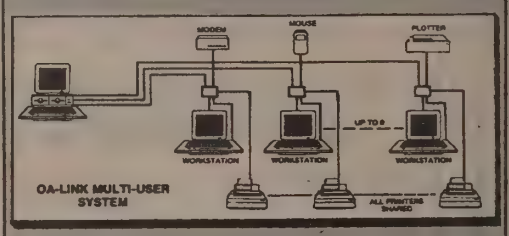

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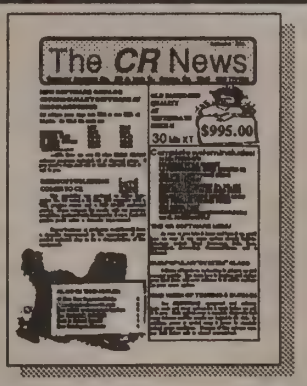

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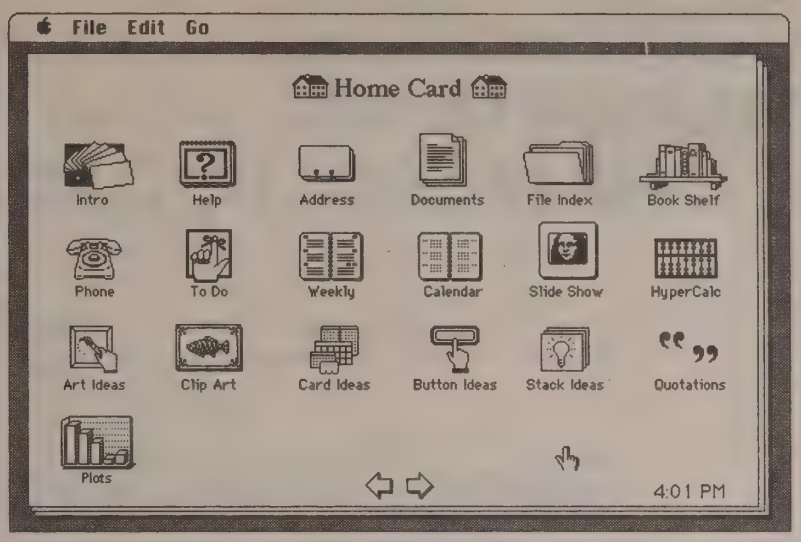

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MAC-PC CONNECTIVITY

BY ROBERT BEAUCHAMP

Simplicity, Simplicity, Simplicity

The Key To Graphics Connectivity Is To Follow Thoreau's Advice

In last month's column we related the story of Cynthia, mild-mannered DTP manager by day, connectivity guerrilla by night, and her efforts to move graphics files between the Macintosh and the PC environments.

She had tried using *WordPerfect* for the Mac and PC. While *WordPerfect* 5.0 's graphics capabilities put it head and shoulders above other high-end PC word processors, its counterpart, *WordPerfect* for the Mac, didn't measure up. The Mac version's biggest flaw, from a connectivity standpoint, is that it doesn't import those wonderful graphics files from its PC cousin.

Ever hopeful, however, Cynthia went to her favorite software store and bought another product that has both Mac and PC versions: *PageMaker* from Aldus.

To her delight she found that *PageMaker* files created on the PC will transfer to the Mac and vice versa. Her dreams had been realized. Not only could she transfer word processing, database and spreadsheet files back and forth, but now she could transfer graphics. In other words, if you paste a piece of clip art into a *PageMaker* file, transfer that file to the PC, and open it up with *PageMaker* on the PC, you will retain your graphics image.

The world of graphics and graphics file formats is convoluted, and there is a good deal of information both you and Cynthia can use to assist you in your efforts. In this month's column we'll deal with the background information you need to get started; next month we'll deal specifically with both versions of the all-time favorite desktop publishing package, *PageMaker*.

Traffic In Graphics

Only Carl Sagan could adequately describe the number of graphics file formats in the world today. In his slow signature voice he would say, "Dozens and dozens, Cynthia, more than most of us can even comprehend. Surely, my dear, an alien intelligence would find the current situation perplexing if not totally inexplicable. Astrophysics is much easier. I recommend a change in careers."

Copyright © 1988 by Robert Beauchamp. All Rights Reserved. *Rob recently moved to Minneapolis and has traded his ten-speed for a pair of cross-country skis for his morning commute.*

What with PICT, TIFF, PNTG, PCX, EPSF, EPSP and many other cryptic collections of letters, confusion runs rampant. While each paint program creates its own file format, a few standards are emerging. When transferring files back and forth between the Mac and IBM worlds, it is very important to stick to these standards. The secret to successfully transferring graphics files between the PC and the Mac is to reduce the number of file formats you create to a small number of easily interchangeable formats.

The three file formats that are the most useful to the connectivity-minded person are TIFF, Tagged Image File Format, PNTG, the format created by *MacPaint,* and PostScript.

TIFF is now created by most scanners. Many paint programs in both the Mac and PC worlds allow you the option of saving a file in TIFF. A TIFF file created on the Mac can be opened on a PC application that accepts TIFF files.

PNTG is the universal Mac graphics file format. Many, if not all, Mac paint programs will save files in PNTG. Some PC applications also accept *MacPaint* files, including *PageMaker* for the PC.

You might also include PICT files in this category. PICT is the file format created by *MacDraw*. It also is accepted by a number of programs in both worlds. The reason I shy away from saving things in PICT is that PICT files imported into a PC *PageMaker* file appear as a black square and will not print from the PC.

With the introduction of programs such as *Adobe Illustrator/ Illustrator 88* and Aldus *FreeHand*, PostScript file formats have become very important. PostScript offers the highest quality graphics available.

PostScript is a language used by laser printers to create those straight lines, perfectly black solids and smooth curves. Because PostScript is slow, complex and produces a better resolution than your monitor, you cannot directly see the results of PostScript on your screen. What has been developed are two standard formats that fuse a workable screen representation to the PostScript commands you are using.

These formats are called Encapsulated Postscript, or EPS. There is one for the Macintosh, Mac EPS or EPSF, and one for the PC, IBM EPS or EPSP. Mac EPS is a combination of PostScript commands for the printer and QuickDraw commands for the screen representation. The QuickDraw commands, the language of *MacDraw*, let you create your image on the screen. IBM EPS is a combination of PostScript and TIFF. TIFF serves the same function on the PC as QuickDraw does on the Mac.

The secret to successfully transferring graphics files between the PC and the Mac is to reduce the number of file formats you create to a small number of easily interchangeable formats.

As you may have guessed, IBM EPS and Mac EPS are not compatible. Adobe is said to be working on a common EPS format, but for the moment we have to deal with two formats. There is also something in the works called Display PostScript which will let you see exactly what you're doing with PostScript rather than just a representation. For its first implementation, check out the NeXT workstation.

Two Absolutely Necessary Products

You might be saying to yourself, "How am I going to get all these graphics files I use down to the two or three suggested formats? And how am I going to use Mac EPS files on the PC?" The answer to these question is *The Curator.*

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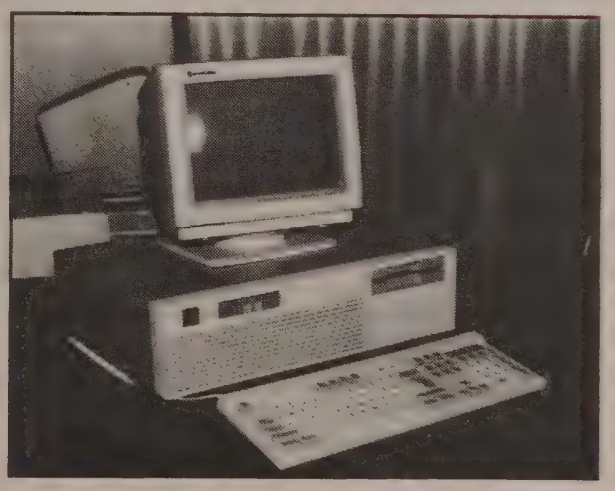

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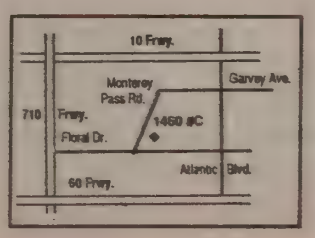

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The Curator from Solutions International is something everyone who uses graphics on the Macintosh should have, whether or not you have connectivity needs. If you *are* trying to move graphics back and forth, you absolutely need this piece of software.

The primary function of *The Curator* is to organize all your graphics files so you can access them easily. *The Curator* creates a thumbnail sketch of each of your graphics files. It then allows you to browse through these thumbnail sketches, seeing what is in each file without having to take the time to open it up. It also has a search function that will find those long lost files for you.

The secondary function, the one of most interest to us, is *The Curator*'s ability to save graphics files in a different format from the one in which they were created. *The Curator* will save PNTG and PICT files in TIFF and convert TIFF files to PNTG and PICT. It will also convert PNTG files into PICT and vice versa.

This isn't the whole story, however. *The Curator* also lets you convert Mac EPS files into IBM EPS files and IBM EPS into Mac EPS. You can stop applauding, now. I know it's hard to imagine, but here it is—an application that does something absolutely useful and essential and makes it easy to do. Along with converting EPS files for the different environments, *The Curator* also converts those EPS files into *MacPaint*, *MacDraw* and TIFF.

This feature makes *The Curator* absolutely essential for those who want to use EPS files created in one environment in another environment. It also emphasizes the need to use those few file formats that are easily converted.

The Curator works as either a desk accessory or as an independent application within MultiFinder. This makes it extremely easy to find a graphic while you're in the midst of an application. If you need to import a graphic into a *PageMaker* file, just access your Apple Menu, browse through your clip art library, choose your file and place it in your document. All without leaving *PageMaker*.

The other absolutely essential product you need is *Scrapbook Plus* from T/Maker. *Scrapbook Plus* runs in the Microsoft *Windows* 2.03 and *Windows 386* graphical environments. It takes advantage of all of *Windows*' multitasking capabilities and graphics features. As a matter of fact it is one of the few products around that really works well in *Windows*. This is a product that *Windows* users will want even if they don't have to transfer files back and forth.

Like *The Curator*, *Scrapbook Plus* is used to keep track of your files, though unlike *The Curator* it only makes thumbnails of those files actually located in the scrapbook.

Scrapbook Plus imports TIFF and IBM EPS files, among others. While it is not as versatile in the area of conversion, it does let you convert EPS files into TIFF. *Scrapbook Plus* will not convert IBM EPS files into Mac EPS Files or convert EPS files into any format other than TIFF.

This is usually not a problem, however. Since *Scrapbook Plus* is a scrapbook, all you have to do is paste your file into whatever paint application you have that will run under *Windows*. Two of the more popular ones are *Windows Paint* and *PC Paintbrush*.

It really all comes together when you learn that *PageMaker* for the PC runs under *Windows*. You can use *Scrapbook Plus* and PC *PageMaker* with as much ease as you enjoy with *The Curator* and Mac *PageMaker*. You can imagine how excited Cynthia is at this point.

Clip Art Extraordinaire

There are a couple of points that the newly initiated Clip Art Converter should know. All the graphics we've been discussing so far are in black and white. Color is a whole other can of worms. Also, if you convert an EPS file into TIFF or other format, it loses its "PostScriptness" and is simply another bit-mapped image.

In the confusing area of graphics formats and connectivity, the simple rule to follow is "use EPS when you can; if you can't use EPS, use TIFF." By sticking to these formats you'll make your life a lot simpler.

If you're looking for some high quality EPS images, *Cliptures* from Dream Maker is an excellent series of EPS files for the Mac. T/Maker has an extensive collection of high quality EPS clip art for both the Mac and the PC under the *ClickArt* name.

Resources

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BMUG

BY DAVID MORGENSTERN

The Month Of Shameless Self-Promotion

Welcome to the fourth BMUG column. It's the month to shamelessly plug BMUG products—but you'll like it!

Be Happy—Don't Worry. There's BMUG.

The weekly BMUG main meeting is the Macintosh Garden of Eden—no Apple and the Snake jokes allowed! In the blue glow of a projected Mac-screen, the workday competitions are put aside and the event begins. The famous hardware surgeons, Chuck Meyer of M.A.C. and John Sawyer of CJS Systems, stand in the corner and talk shop. Programmers swap job prospects, while the weekly printer question is posed. The crowd licks its collective chops, waiting for the presentations to begin. Go BMUG!

When Is A Show Hot And Not?—The Report From Macworld Expo

Every survivor of the Boston Macworld Expo was recently forced to stand up and give their report to the faithful stay-at-home crowd. This ritual debriefing is a meeting tradition, but was supposed to have been enhanced by two high-tech productions: a video-tape shot at the Expo and a live telephone hook-up broadcast from Boston to our main meeting.

The video has yet to show up on this side of the continent. It was given to a hotel desk-clerk for transfer to a kind volunteer BMUG tape courier. We hoped to show it at the main meeting of Expo week. The hotel probably thought it was a porno video and wanted to bootleg a copy. Were they surprised!

The live phone-in show was also a disaster. The BMUG crowd heard me ask questions and breathe, but little in the way of response. The answers from Boston were too faint to be heard in the hall. Everyone said that the sound problem was fixed on the last question. Of course!

Here's the word from the BMUG Boston crew:

• **Impressions**. The weather was hot and the show was "dull." "There were lots of people in suits not buying anything." There was "nothing new or revolutionary." The same could not be said about the food at Expo parties; "We had seafood every night!"

• **Best New Printer Not Shipping.** The Jasmine (*DirectPrint*)/QUME (*CrystalPrint*) 300 dpi printer scheduled for release in October. It features a PostScript clone, three megs of memory and RISC technology. All this means it runs fast. "Small package, nice looking."

• **Best Word Processing Program Still In Beta From Last Expo.** Paragon Software showed their "new" word processor *Nisus* (evolved from the *QUED/M* text editor). Includes a built in drawing package, speed, unlimited multiple **Undo**— and two megs of memory are not required, unlike *FullWrite*. The program is really in pre-pre-release (in computer talk, *alpha*) and will start testing this fall.

• **Best New "Weird" Product Still In Beta.** The *POEM*, Personal and Original Embroidery Machine, seems to have been the hit of the show. It embroiders *MacPaint* files with a cute little sewing machine plugged into a Macintosh.

• **Best New Product For the Every Day User.** The 32-bit color New Vista video-card from TrueVision. It's only $6,000 and does everything you could imagine, including setting resolution from software.

Of course there were hundreds of other programs and updates (released and unreleased), cards and scanners, including the new Apple Scanner, "the software's better than the hardware." I know the workers in the BMUG booth at the Expo felt **the very best new products were being shown at the BMUG booth!**

HOT TIP

Got a lot of folders open on the Desktop? It always takes a year and a day to get back to the Finder when quitting an application. Try holding down the Option key when selecting Quit from the File menu. All the folders will be closed and it will take less time to return to Finder.

Copyright © 1988 by David Morgenstern. David Morgenstern is a Bay Area "MacNurturer" and BMUG member. David is DMORGENSTERN on GEnie and himself at (415) 641-7352.

The BMUG PD-ROM

The busy BMUG booth at the Macworld Expo premiered two products and one update: The BMUG PD-ROM™, *BMUG On HyperCard* and the *BMUG Newsletter* (finally).

The PD-ROM™ is for use on the new optical storage drives for the Mac. On one 4.75 inch plastic disk is our entire 280-floppy library, all the articles in our newsletters and many volumes of messages from Mac-related information services. It wasn't an easy task.

This is the first BMUG product distributed nation-wide for the general public. Thanks to the hard work and long hours of members Stephen Howard and Raines Cohen (and many others), a contract was negotiated, a *HyperCard* interface was developed, tested and finally sent off to the publisher, Discovery Systems.

The development of the PD-ROM™ pushed the limits of the Macintosh and the nerves of BMUG activists. Problems with system software limitations gave everyone fits. Hardware reliability was critical in the handling, back-up and successful mailing of 400 megabytes of software. BMUG was very familiar to the 1:00 am shifts at the Air Ohio counter with our air-freight deliveries.

The PD-ROM™ spins away from the competition with our special BMUG-only features:

The BMUG *PD-ROM*™ *Index* software. One of the problems with the CD drives is their speed, or lack of it. The average access time for the Apple CD-SC is 600 milliseconds, compared to the 20 ms access of your hard-disk! Imagine browsing through our 7000 files with the Finder—you'd need a snooze alarm! The *PD-ROM*™ *Index* allows the user to browse, copy and get information about everything on the disk, bypassing the Finder.

HOT TIP

Try holding down the Option key when clicking the Close box on a window in the Finder. If you're trying this for the first time, open a bunch of windows all around the screen and make some popcorn.

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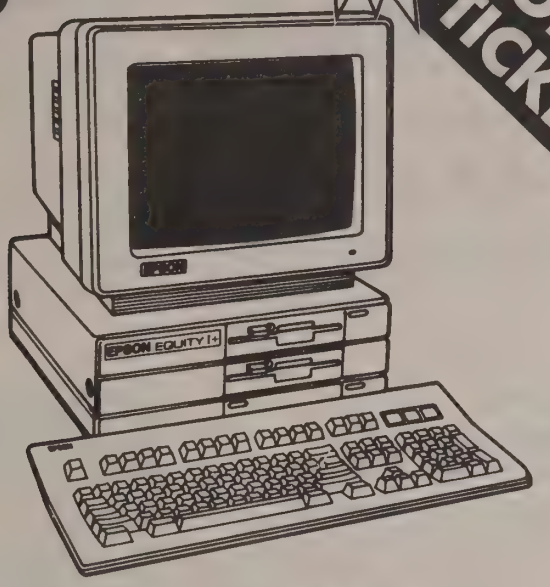

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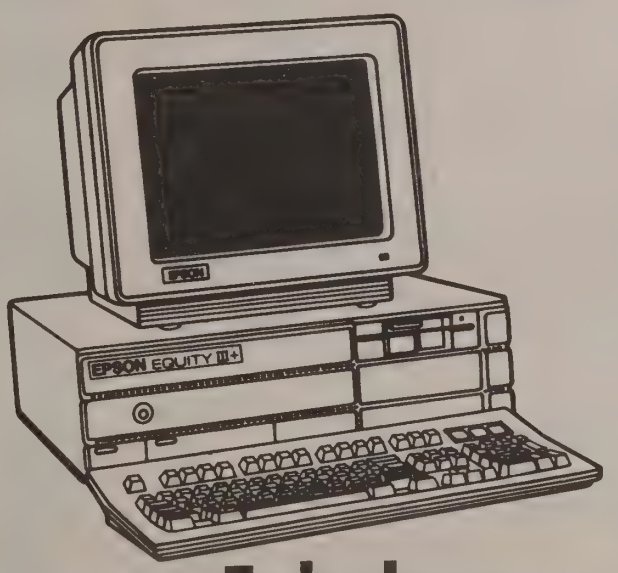
- Enhanced AT style keyboard
- Built in 3½" floppy disk drive support
- Nine full size expansion slots

70MB HARD DISK

$2150



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The BMUG stamp of quality. BMUG has never tried to have **the largest** software library in the world, just one of the largest and the best. We examine and test every piece of shareware and public domain software that we offer for sale. We try to keep versions current. You won't find programs that only work on a 128K original Mac running System 1.1 in the BMUG Library. You also won't find a 40 meg folder filled with recovered files and old Excel spreadsheets, labeled "This is all junk" on the P*D-ROM*™ .

The PD-ROM™ is a bargain. You won't have to sell blood for a copy of this piece of plastic. The PD-ROM™ is only $100! That is a tremendous savings over the price of our Library on floppy disks and half the price of the other spreads. This is one of those once-in-a-lifetime occurrences where the highest quality is combined with the lowest price. Amazing!

One ShortStack, Side Of HyperCard

For years everyone has been wanting a directory or encyclopedia of the BMUG software library. It is happening now, thanks to the editor, Scott Kronick (BMUG activist and author), well before the 21st century. *BMUG On HyperCard* is the first volume of a multi-volume set that will span the entire Library. The 200+ page book contains a screen-dump of every stack with a short description (and many times a review or warning), a number of articles on *HyperCard* and an index. It's only $15 and comes with a disk of stacks. No HyperHome should be without *BMUG On HyperCard*.

The BMUG "Newsletter"

Start exercising your arms and wrists. Warn the postal carriers! The latest issue of the *BMUG Newsletter* is out and mailed! What's all the fuss, ask those readers that have never seen the *Newsletter*? Our semiannual newsletter is now 350 pages and weighs more than our Siamese cat, Dorothy!

The *Newsletter* contains articles from members around the country and from authors that write for all the Mac journals. Topics range from programming tear-off menus to the experience of single-parenting with a Mac. King of the BMUG HelpLine, Steve Costa, has a great article on trouble-shooting dead disks, which also includes a list of error messages and their meaning! There are some wonderful lists in this issue: a list of most of the Mac BBSs around the country, an *EchoMac* Directory (*EchoMac* is an international group of bulletin boards that shares messages of Mac interest), a Mac glossary and a Mac bibliography. Lots of great stuff!

The only way to get this issue, Summer/Fall 1988, is to become a member of BMUG. That's $25 for six months and $40 a year.

Bytes And Pieces

In a previous episode we spoke about rebuilding the invisible, but very important Desktop file by holding down the **Command** and **Option** keys while double-clicking the mouse on the *Finder* icon. Readers with tired, heavy fingers rebuilt their Desktop file. People with light fast fingers, used to the newer soft-touch keyboards, had perhaps a different result.

When you turn on the Mac, a System on a floppy disk or a hard disk is loaded, and that disk's icon is put at the upper right-hand corner of the screen. But what if you want to use a font or DA on a different System disk? You could Shut Down and stick the new System disk in the drive, but that can take a minute or two. It's much better to emulate the fast-fingered user by double-clicking on the Finder icon of the new disk (that you want to switch to), hold down the above mentioned keys—**and take your fingers off the keys right after the mouse clicks.** An interesting feature of the new 6.0 System is that it will not allow an earlier version of the System to be switched with this process.

They're Back...

The BMUG Help Line, (415) 849-HELP, provides technical assistance and telephonic hand-holding during business hours (9:00 a.m. - 6:00 p.m.). If your question can't be answered on the spot, we try get you in touch with someone that can help. Of course, not every problem can have a happy ending—but we try.

Viruses are back in the news. Someone has been going around the Bay Area spreading the *Scores* virus like a computer-age Typhoid Mary. Over twenty computer stores were struck, including M.A.C., which sells BMUG disks over the counter. Perhaps this started the rumor that BMUG disks have viruses on them!

BMUG disks have never had a virus problem. We are very careful to separate the production of our disks from the regular office work, help and demonstrations. Some of our programming activists are working on some new strategies for dealing with infections.

The first virus written in the *HyperTalk* language has been discovered. It's called the *HyperAvenger* virus. It is "harmless" since no actual damage is done to disk or data, but it will certainly force infected users to spend hours removing the virus from their stacks. The virus displays the following message: "Greetings from the HyperAvenger! I am the first *HyperCard* virus ever. I was created by a mischievous 14-year-old, and am completely harmless. Dukakis for President in '88, Peace on Earth, and have a nice day." Punk kids! Get a job!

ONE OF THE MOST IMPORTANT MACINTOSH APPLICATIONS YOU'LL EVER USE.

It's your application to attend the 1988 Macintosh Business Conference & Exposition, to be held November 1–3 at the Disneyland Hotel in Anaheim, California.

The 1988 MBC&E is the place to get the definitive word on corporate and professional Macintosh® applications: how to set up the "Power" Macintosh office, how to choose a LAN, how to connect to MS-DOS, UNIX and DEC VAX, and more.

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MBC&E offers more than 40 Core Conference sessions designed specifically with the corporate and professional Macintosh user in mind. Including:
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MBC&E is co-sponsored by *MacUser* magazine and Cambridge Marketing, Inc.

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Listen to the movers and shakers. Test-drive the latest in corporate and professional Macintosh applications. Featuring:
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MBC&E's "Shootout" Series of conference sessions will give you your best opportunity to compare popular business software. Including:
- Desktop Presentation Packages
- Desktop Publishing Packages
- Macintosh Data Bases
- Macintosh CAD

Applications for the Rest of Us
MBC&E's Vertical Market Case Studies series will bring you face to face with experienced users in your own industry. Namely: Architecture, Marketing, Communications, Health Services, Accounting, Law, Publishing, Engineering, Military, Music, Government...and more.

Applications in Focus
MBC&E also offers a range of half-day Professional Tutorials and full-day Executive Seminars. Each is led by a leader in the field and includes admission to the three-day Conference and Exhibits. Sign up now; space for all of these sessions is extremely limited.

A Timer For Your Mac?

BMUG and the BMUG HelpLine are fertile grounds for new ideas in Mac soft- and hardware. Members have solved problems of heat build-up (*MacChimney*) and sound (*MacRecorder*). A recent call on the HelpLine has evolved another new product.

Kim Wennerberg called a few months ago to ask BMUG's opinion on the On/Off controversy. Electrical devices suffer the most wear in power-up (in English—*turning on*). Kim, a BMUG member, truck driver and commodity trader, receives live prices via a satellite. The prices start at 5:30 am, but he didn't really need to be trading until 7:00. Should he leave the Mac II on all day and night to receive his early morning data?

The answer to this question is double-sided. The Mac II isn't really bothered by 24 hour use, but the hard-disk (a physical mechanism) might suffer extra wear from this practice. Is there a device that will turn on a Mac for you?

If you have a Mac Plus or SE, there's no problem turning on your machine anytime or anywhere. The X-10 Powerhouse Co. makes a programmable timer to turn on any appliance, including your Mac. This product is carried in many electronic supply stores and catalogs. You may not know that they also make a remote switching device that works through the phone. It's called the Telephone Responder Set ($65 for the three piece set) and would be a big help for BBS sysops to reset their Macs when the board goes down while they're at work.

The Mac II is a different kettle of fish. It's turned on and off by a message from an ADB (Apple Desktop Bus) device — that big button on the keyboard. Simply turning the power on and off won't do the trick. Kim talked to his electrical engineer father, Gunnar, and has produced the answer—the Mactivator™.

BMUG and the BMUG HelpLine are fertile grounds for new ideas in Mac soft- and hardware. Members have solved problems of heat build-up (MacChimney) and sound (MacRecorder).

The *Mactivator* is a digital alarm clock with an ADB cord attached. It will turn the Mac on from the alarm setting (don't worry, the snooze bar has been disconnected). Kim also has a device that works with the Telephone Responder Set, so you can reset the Mac II over the phone. This is a limited manual production in the BMUG hacker tradition. The Mactivator™ (timer) is $45 and the phone model is $35 (you need to buy the X-10 device yourself). Call Kim at (415) 234-5178 or write to P.O. Box 115, Pt. Richmond, CA 94807.

Everything Else

BMUG has one of the most up-to-date, comprehensive software libraries around with 250+ double-sided disks filled with the latest versions of public domain or shareware programs and *HyperCard* stacks. New disks are unveiled almost every week at the Thursday general meeting.

Our BBS offers the latest versions of files in our software library as well as news, private mail, rumors, etc. The BMUG BBS is part of the worldwide EchoMac Network on FIDOnet; by calling a local FIDOnet BBS in your area, you would then be able to get in touch with us wherever you are as well as send mail to users everywhere! With our multiline capability you are now be able to have access to BMUG almost 24 hours a day. It's easy to use, fun and a great resource.

BMUG has many great Special Interest Groups (SIGs). They're a great way to meet people doing or trying to do the same things you are. They include the Alpha/Beta SIGs (for new users and not-so new users), Desktop Publishing, Computer-Aided Design, *HyperCard*, Music, Professional Users, Programmers, Telecommunications, A/UX, Database Developers and more.

You can reach BMUG at any of the following numbers: 849-HELP (Help Line) • 549-2684 (Business Office) • 849-9114 (Announcements/Meeting Schedule).

What is BMUG? Good question. BMUG is an educational non-profit corporation promoting the exchange of information. Like any growing organization it is many different things to its 4500+ international membership.

BMUG, Inc. is a computer user group located in Berkeley, California. The group specializes in computers using a graphic interface. For a while that meant the Macintosh™, but now includes other makes, models and operating systems. BMUG supports many Special Interest Groups (SIGs), a five-line BBS, help-line, software library, weekly meetings and much more. BMUG also puts out a semi-annual 350 page book that we call our "newsletter." Our motto continues to be: We're in the business of giving away information. □

APPLICATION AND REGISTRATION FORM

Advance Registration Deadline is October 21, 1988

THE 1988 MACINTOSH BUSINESS CONFERENCE & EXPOSITION

1. Please print the correct information here:

Name (FIRST OR INITIALS / LAST)

Position/Telephone (AREA CODE / NUMBER)

Company/Organization

Business Address (DEPT OR M/S)

City/State/Zip Code (STATE / ZIP CODE)

2. MBC&E HALF-DAY PROFESSIONAL TUTORIALS

Macintosh in Corporate A/V Production
(Nov. 2; 8:00 - 12:00. Code: PT-1)
From storyboarding to finshed product: incorporating mixed media to create first-class training and marketing tools.

Macintosh in Accounting & Finance
(Nov. 2; 1:00 - 5:00. Code: PT-2)
Bookkeeping, invoicing, purchasing, financial analysis, inventory control and office compatibility issues.

Macintosh in Admin. & Management
(Nov. 3, 8:00 - 12:00. Code: PT-3)
Business planning, project tracking, personnel and resource management. For managers in all business areas.

Macintosh in Sales & Marketing
(Nov. 3, 1:00 - 5:00. Code: PT-4)
Client/prospect tracking, contact prioritizing, report generation and analysis: in short, how to use Macintosh to make the sale.

The MBC&E Hands On Business Software Series
Professional, four-hour hands-on tutorials, led by experienced workshop leaders. Learn how to become a "power" user of the top-selling Macintosh packages. (The Macintosh Overview is designed for newcomers to Macintosh technology. Other sessions assume some familiarity with Macintosh; they are designed for beginning to intermediate users of these packages, except where noted.)

PT-5 Macintosh Overview (11/1; 8:00)
PT-6 Hands On *Excel* (11/1; 8:00)
PT-7 Hands On *Microsoft Works* (11/1; 1:00)
PT-8 Hands On *HyperCard* (11/1; 1:00)
PT-9 Macintosh Overview (11/2; 8:00)
PT-10 Hands On *Excel* (for intermediate to adv. users; 11/2; 8:00)
PT-11 Hands On *HyperCard* (for intermediate to adv.; 11/2; 1:00)
PT-12 Hands On *MacDraw* (11/2; 1:00)
PT-13 Hands On *PageMaker* (11/3; 8:00)
PT-14 Hands On *Cricket Presents* (11/3; 8:00)
PT-15 Hands On *Adobe Illustrator* (11/3; 1:00)
PT-16 Hands On *MacProject II* (11/3; 1:00)

3. FULL-DAY EXECUTIVE SEMINARS

The Power Macintosh Office: A Complete, No-Nonsense Guide
(Repeated Nov.1 & 2; 8:00 - 3:30. Code: ES-1 and ES-2)
Hardware configurations, networking; E-mail, training, software and security issues: Everything you need to know to launch and administrate the Power Macintosh Office. Why learn important lessons and strategies the hard way? This Executive Seminar can save months of indecision and thousands of dollars for your business.

The MIS/DP Connectivity Round-table
(Nov. 3; 8:00 - 3:30. Code: ES-3)
Making Macintosh work with an existing corporate DP/MIS environment: an interactive lecture/demonstration. Connectivity issues, prototyping, HyperCard as dashboard: this Seminar will help you seamlessly integrate Macintosh with your current MIS/DP structure.

4. TICKET OPTIONS
Choose one of the following:

	Reg. Price	Advance Discount Price
A. Full-Day Executive Seminars		
□ ES-1 Power Macintosh Office - 11/1, 8:00 AM	$495*	$395*
□ ES-2 Power Macintosh Office - 11/2, 8:00	$495*	$395*
□ ES-3 MIS/DP Roundtable - 11/3, 8:00	$495*	$395*
B. Half-Day Professional Tutorials		
□ PT-1 Corporate A/V Prod. - 11/2, 8:00	$295**	$225**
□ PT-2 Accounting & Finance - 11/2, 1:00 PM	$295**	$225**
□ PT-3 Admin. & Management - 11/3, 8:00	$295**	$225**
□ PT-4 Sales & Marketing - 11/3, 1:00	$295**	$225**
□ PT-5 Macintosh Overview - 11/1, 8:00	$295**	$225**
□ PT-6 Hands On Excel - 11/1, 8:00	$295**	$225**
□ PT-7 Hands On Microsoft Works - 11/1, 1:00	$295**	$225**
□ PT-8 Hands On HyperCard - 11/1, 1:00	$295**	$225**
□ PT-9 Macintosh Overview - 11/2, 8:00	$295**	$225**
□ PT-10 Hands On Exce! (Adv) - 11/2, 8:00	$295**	$225**
□ PT-11 Hands On HyperCard (Adv) - 11/2, 1:00	$295**	$225**
□ PT-12 Hands On MacDraw - 11/2, 1:00	$295**	$225**
□ PT-13 Hands On PageMaker - 11/3, 8:00	$295**	$225**
□ PT-14 Hands On Cricket Presents - 11/3, 8:00	$295**	$225**
□ PT-15 Hands On Adobe Illustrator - 11/3, 1:00	$295**	$225**
□ PT-16 Hands On MacProject II - 11/3, 1:00	$295**	$225**
C. Three-Day Conference & Exhibits		
□ CE Including Vertical Market Case Studies	$125	$95
D. Three-Day Exhibits Only		
□ EO Including Keynotes	$40	$25

*Includes three-day Conference, Exhibits and lunch on the day of your seminar.

**Includes three day Conference and Exhibits. Individuals may attend a second Tutorial for an additional $95.

5. HOTEL RESERVATIONS
Reserve your hotel room, if desired.

Disneyland Hotel 800/854-6165 (in CA: 213/636-3251)

Single Double	No./ Guests	Arrival Date	Departure Date
□ $94 □ $94			

Arrival: □ Early □ Late
Reservations must be guaranteed by one night's deposit.

□ Please use the credit card I've indicated below.
□ I've enclosed a separate check payable to the Disneyland Hotel.

For fastest confirmation, call the hotel directly. Ask for the special Macintosh Business Conference rates (good through Sept. 30, 1988). Call American Airlines for guaranteed lowest rates to the show: 1-800-433-1790 and ask for STAR file S-14940.

6. PAYMENT
Please enclose payment with your order.

Total Amount Due $_____

□ Check Enclosed

(Make check for tickets payable to Cambridge Marketing, Inc. Check for hotel reservation should be made payable to the Disneyland Hotel.) Mail to: Cambridge Marketing, Inc., MBC&E, One Forbes Rd., Lexington, MA 02173

□ Credit Card (circle one) VISA

Daytime Phone Number:

Credit Card #: Exp. Date

Cardholder's Name:

Authorized Signature:

Your Amex card billing address:

To be sure you receive complete MBC&E credentials, please complete this form entirely and enclose your check, money order, or credit card number. Seating at some sessions is limited; reserve your place, save money, and avoid lines by pre-registering. Orders received after September 30 will be held at the "Will Call" window at the show. Show hours are 11:00 - 6:00 on Nov. 1 (Keynote starts at 10:00) and 10:00 - 6:00 on Nov. 2 and 3. Registration opens at 9:00 a.m. Please note: Some Professional Tutorials and Full-day Executive Seminars begin at 8:00 a.m. All registrations are non-refundable. ONE FORM PER REGISTRANT - PHOTOCOPIES ARE WELCOME

7. IMPORTANT
Complete and return this form by October 21 to:
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One Forbes Road, Lexington, MA 02173

Or Call Toll Free: 1-800-262-3378
(in Mass., 617-860-7100)

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20 MHz 386

- QC 386 20 MHz Motherboard
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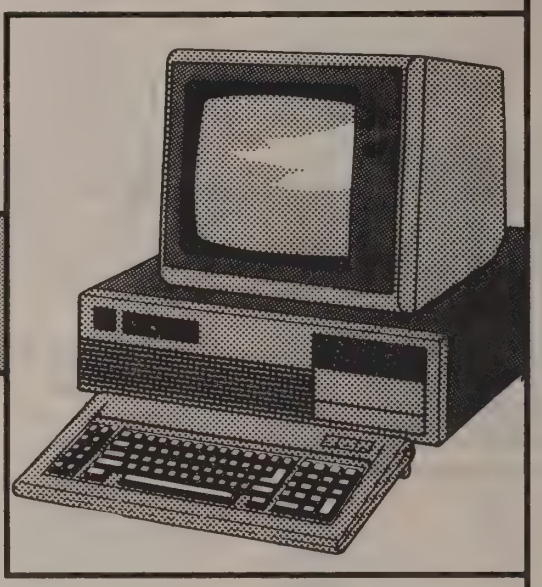
- VLSI Chip Set from Chip & Technology
- Seagate 40MB Hard Drive
- NCL Hard/Floppy Drive Controller
- One 1.2MB Floppy Drive
- AT IO Card with One Serial & One Parallel Port
- Mono Graphics Card
- Gold Star Mono Amber Monitor
- AT Turbo Case
- 200 Watt Power Supply
- 101 Enhanced Keyboard

$2385



12 MHz 286

$1339

- Suntac 12 MHz 286 0 Wait Motherboard
- 512K 80ns Fast Speed Memory On Board (Exp. to 4MB)
- Seagate 40MB Hard Drive
- WA3 Hard/Floppy Drive Controller Card
- One 1.2MB Floppy Drive
- AT IO Card with One Serial & One Parallel Port
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- Gold Star Mono Amber Monitor
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XT 10 MHz 20MB TURBO SYSTEM $750.00 COMPLETE
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R E V I E W S

101 Macros For Lotus 1-2-3

Published by:
Macropac International
For:
IBM PC/XT/AT and compatibles
List price: $69.95
Reviewed by: Steve Guttman

101 Macros for Lotus 1-2-3 is not one of those products you can't live without, but it does make life with *Lotus* a little bit easier

101 Macros for Lotus 1-2-3 does indeed contain precisely 101 *Lotus* macros, designed to run with both Release 1A or 2 of *1-2-3*. These macros run the gamut from simple row insertion, and cell formatting macros, to elaborate notepad and biorhythm(?!) macros.

Some of these macros will become indispensable to you, as you find ways of quickly automating those mundane, repetitive keystrokes. For example, the copy-and-stay (leaves the cursor at the location of the newly copied block), the column widening macro and the macros that sum and average a column of numbers have quickly become mainstays of my macro-repertoire. Some other strong contenders are: the switch-places macro (switches the values in two cells or rows), the percent and dollar range-formatting macros and the go-return macro (which lets you "visit" another part of your spreadsheet and return to the cell you started in).

This package will appeal to two general audiences. Macro novices who want to learn more about 1-*2-3*'s powerful macro language will appreciate the down-to-earth style of the manual and the well-organized and understandable presentation of the macros. Macro-aces who are already facile programmers will value the imagination and cleverness that went into their design.

You'll also enjoy the solid advice provided in the manual about designing and implementing macros. This is good stuff—sensible info on understanding macros and suggested conventions that will help make your programming more consistent.

Of course, the real reason for buying a package like this is that it provides a starting place for you to design your own macros. Out of 101, any one person will probably find only 10 or 15 macros that they want to use with any regularity. But for those occasions when you've got to write that weird custom macro to compute 500 biorhythms and store them in a 1-*2-3* database, isn't it nice to know you don't have to start from scratch? (Macropac International,19855 Stevens Creek Blvd., Suite 168, Cupertino, CA 95014, 800/ 624-0077, 408/996-8143 in CA.)

101 Tips, Tricks & Traps For 1-2-3

Published by:
Macropac International
For: IBM PC/XT/AT and compatibles
List price: $69.95
Reviewed by: Steve Guttman

There are lots of books about computer programs, but not too many computer programs about books about computer programs. *101 Tricks, Tips & Traps For Lotus 1-2-3* is one such software offering.

Based on the book of the same name, *101 Tricks...* is a *1-2-3* add-in product designed to provide easy electronic access to the tips in the book. Because it's an add-in, *101 Tricks...* is installed within the *1-2-3* environment, where it provides single-keystroke access to a table of tips. And since it uses *1-2-3*'s add-in manager, *101 Tricks...* will only work with release 2 of *1-2-3*.

When invoked, the program presents you with a screen full of abbreviated tip titles that serves as a table of contents. The cursor keys allow you to highlight a given title, and pressing ENTER displays the first line of the tip at the screen bottom. Hitting ENTER once more replaces the table of contents with the full text of the tip. ESC subsequently returns you to the table. The tips are succinct and generally quite helpful.

The great weakness, and a source of much confusion in this product, is the table of contents screen. It's terribly hard to read—114 tip titles are shown on one screen in a very closely spaced matrix. And many of the titles themselves are quite cryptic.

While the concept of providing online programming assistance is a powerful and useful idea (nicely exploited for traditional programming languages in the Norton Guides and Peabody), the organization of *101 Tips...*leaves something to be desired.

The current organization encourages users to browse through the tips—which can be a helpful and constructive experience. However, it's not clearly better than browsing through a book, which is your other option—the soft-cover version of *101 Tips* . . . at less than half the price. (Macropac International,19855 Stevens Creek Blvd., Suite 168, Cupertino, CA 95014, 800/ 624-0077, 408/996-8143 in CA.)

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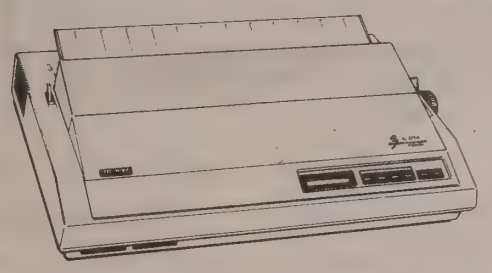

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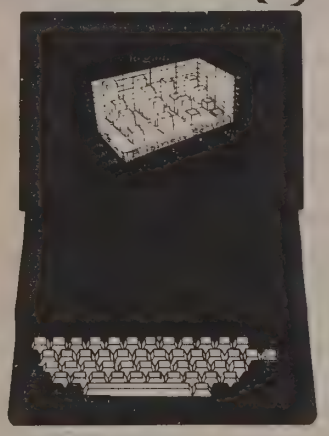

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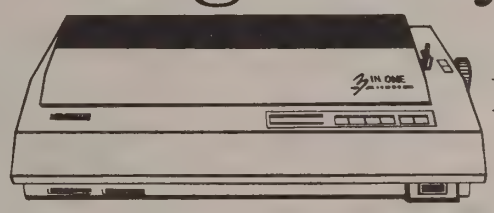

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BY BENNETT FALK

SCO MultiView: Another Approach To Window-Based UNIX

Nearly 20 years after UNIX was introduced, it's quite a shock to find UNIX developers scrambling to catch up with ideas about multi-tasking that seem to have captured the public's attention. Nevertheless, "windowing" has changed the way computer users think about their work and created precisely this state of affairs.

A personal computer user sitting down to work on single-user, single-tasking hardware can enjoy the appearance of multi-tasking through windows displayed in vivid color and excruciatingly sharp detail on a bitmapped video display and shuffled from place to place by a mouse. The effect of using this kind of interface on a one-job-at-a-time PC is to give the user an opportunity to think about (or at least to view) a lot of things at once: it is the user, not the computer, that does the multi-tasking.

Even though windows have provided a convenient way for users to think about multi-tasking, this has not by itself translated into greater interest in UNIX.

Windowing software hasn't really been part of the UNIX canon. Throughout its history, UNIX developers have emphasized device independence, and consequently UNIX itself contains very few utilities that can't be run from the crudest of hardcopy terminals. UNIX has become a good, utilitarian, cost effective system. The development of window-based user interfaces, on the other hand, has strayed in the opposite direction, requiring hardware that is increasingly more sophisticated, more specialized and, in many cases, more expensive. For many users, window-based systems offer an "ease of use" (and in some cases an e*njoyment* of use) that makes this investment worthwhile.

The UNIX vendors willing to bridge this ideological chasm have created fascinating systems. Sun Microsystems is justly famous for its striking 19" bitmapped displays and SunView, a state of the art window/icon/mouse-based user interface.

Sun's computers, however, are also powerful multi-user machines, and the trade-offs are readily apparent. Even though all the users on a Sun system have access to UNIX's multi-tasking facilities, Sun's window-based tools can be used only on the one bitmapped console attached to each system. Users on other terminals have no access to these tools, and even if a number of graphics-based terminals could be attached to the cpu, the memory resources needed to run Sun's windowed user interface for everyone would be very costly.

Copyright © 1988 by Bennett Falk. Bennett Falk lives in the Bay Area and works for Sybase, Inc. He writes whenever he can and hopes for the best.

MultiView—Windowing For ASCII Terminals

A different approach to the problem of providing a window-based user interface is taken by the Santa Cruz Operation with their product MultiView. MultiView is a windowing system for XENIX, and the truly wonderful thing about it is that it will work with ASCII terminals.

This sort of windowing system has several advantages. Above all, it takes no special hardware to use MultiView: any XENIX user can run the windowing system from just about any terminal. The overhead of managing these windows is not particularly heavy, and there is no need for special versions of applications to take advantage of the windows.

The MultiView window manager is started by entering the "mview" command in response to a UNIX shell prompt. Typically MultiView puts a single menu bar at the top of the screen. From this menu, the user can run a program in a window, move and reshape existing windows, transfer data between windows, and the like.

The window manager can be set up to start applications automatically, so users need not see the window manager when starting the window system. Additionally, MultiView allows customized pull-down menus to be attached to any window, so the system can be tailored to meet the needs of inexperienced users.

All window activity is controlled by typing command sequences at the keyboard. (In fact, through version 2.2, the SCO XENIX kernel doesn't offer mouse support. This should change with XENIX 2.3.) If the terminal happens to have function keys, these can be used to reduce the number of keystrokes needed to maneuver through the window management commands.

The price of having a window-based interface that anyone on the system can use is that a lot of the frills are missing. MultiView's windows are text based: no icons are available to illustrate menu selections, and "character" graphics are used to draw boxes around the windows. Neither does MultiView use color. The setcolor utility can be used to establish foreground and background colors before the MultiView is invoked, but once the window manager is in control, the colors cannot be changed, and the same colors will be used for all the windows on the screen.

MultiView relies heavily on a library of terminal descriptions to control such things as the characteristics of windows and the mapping of function keys to window manager commands. This library is yet another variation on the UNIX "termcap" database, and those who take their delight in writing termcap entries will find many pleasant diversions in MultiView.

For example, the scrollable height of a window may be modified by changing the termcap value for number of lines on the screen. By default, the scrollable area of a MultiView window is the size of one screen (most often 24 or 25 lines by 80 columns). Editing the termcap to indicate a larger screen size increased the scrolling area as well, although values above 50 lines produced unusual behavior. A special set of termcap tokens allows the user to map window management commands to keystrokes in the terminal description.

The price of having a window-based interface anyone on the system can use is that a lot of the frills are missing. MultiView's windows are text based: no icons are available to illustrate menu selections.

Administering MultiView is, in fact, pretty easy. Most of the setup of windows and terminals is done by editing ASCII files, and the format of the files that control the window manager and desk accessories is similar to that used in other SCO products.

Installing MultiView is also straightforward. It's good to be aware that the XENIX kernel is modified during the installation and several "virtual ttys" are added to the system, but none of this requires any special skills of the person doing the installation.

MultiView delivers what a windowing system ought to deliver: it is fun to use. It is also faithful, in its own way, to the notion of device independence that motivated much of UNIX development. But there is an ironic edge to this fidelity. The no-frills windowing system is not available for the large, multi-user computers where graphics support is costly and users on ASCII terminals have no windowing facilities. It is, instead, available for small Intel-based machines with well-standardized and relatively inexpensive graphics hardware. There is no obvious reason why this should be so.

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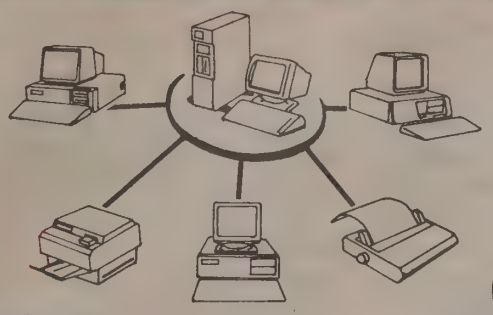

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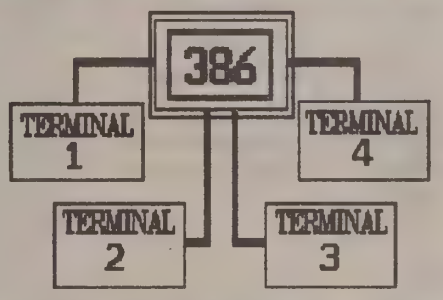

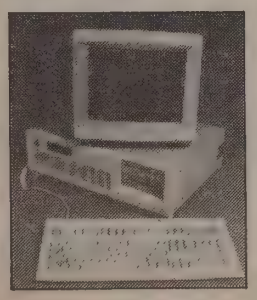

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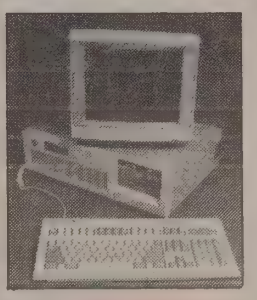

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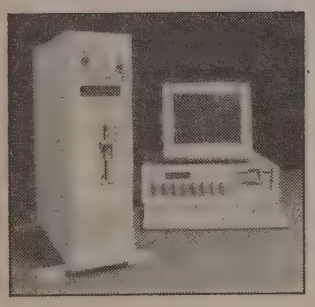

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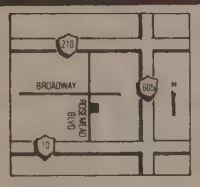

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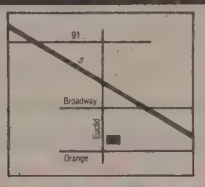

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BY DAVID HAWKINS

What's An Atari ST?

The State Of The Machine

From time to time I run into people who read this column who don't know what kind of computer I'm talking about. So this is a brief description of the personal computer field and where the Atari fits in.

IBM And Similar Things

There's a big company called IBM that makes what is called a PC—personal computer. There are a lot of them out there and there are companies that have copied the PC and produced "clones"—and there are a lot of those out there.

The Atari ST will run some of the programs that run on IBM-type computers. It involves using a program called *PC-DITTO* (available from Avant-Garde Systems, 904/221-2904, $89.95). However, *PC-DITTO* can be slow, and if your main concern is running IBM programs, then you might as well get an IBM-PC type of computer.

The Macintosh

The Mac is the other computer that you'll see in computer magazines. If you examine a Mac at a computer store, you'll find that it's more graphic-oriented. You use a mouse to click at images on the screen in order to accomplish tasks. (On the IBM you type in commands to start programs.) The Mac has been used a lot for desktop publishing.

A few years ago David Small created a product called Magic Sac that allowed the Atari to run Mac programs. David is releasing a new product called Spectre 128. More details on that later in this column. If you are interested in the Mac, then you'll save quite a bit of money by getting the Atari and a Mac emulator.

Other Computers

The Atari is one of those "other computers." You won't find many ads for it. When it *is* mentioned, it's often compared to an Amiga—another one of those "other computers."

Both the Atari and the Amiga are graphic oriented computers—similar to the Macintosh. Both are good for working with graphics and sound. Both are excellent game machines, with good games available on each. The two computers are close enough to each other in technical details that fans of one over the other can easily get caught up in heated debate. I'll be honest and confess that the main reason I bought the Atari instead of the Amiga was because the Atari would fit under the limit on my credit card and the Amiga couldn't. (By the same criterion, the Mac is forever out of my reach.)

By using emulators, it is possible for the Atari ST to run software written for IBMs, Macs, Atari 8-bit computers and CP/M computers, as well as the software written specifically for the ST. As far as I know this is the widest range of software that any computer currently in production can run.

Software For The Atari

There is some excellent software written for the Atari. There's an ST version of *WordPerfect*, as well as other good programs like *WordUp* in the word processing field. For telecomm buffs, there's *Flash* and *Uniterm. Timeworks Desktop Publisher ST* can handle desktop publishing.

In a future column I plan to cover some of the 3-D software that has recently been released for the ST. For 3-D stuff you might be better off seeing it on your dealer's computer, so you can see how good it really is.

Mac Emulator

I mentioned that David Small had produced a Macintosh emulator a few years ago. That product was marketed by Data Pacific. Dave quit Data Pacific earlier this year. He presently has a new product called Spectre 128, which is a step beyond the Magic Sac.

First, the Magic Sac works by using a set of Macintosh ROMs. The original Macs used what were referred to as 64K ROMs. Apple later upgraded the Mac, and many of the newer ROMs are 128K. When Mac users had their machines upgraded, there were plenty of the old 64K ROMs left over.

Since the Magic Sac uses Macintosh ROMs, it can run a lot of Mac software—especially well-written Mac software. Apple provided guidelines about how Mac software should be written. Just about all the software that followed those guidelines ran on the Magic Sac. However, there was quite bit of software that didn't follow the guidelines.

Eventually Dave Small improved Magic Sac to the point where it ran even the poorly written software. There were still a few programs that didn't run, but for the most part you could run the major Mac applications on the Atari using the Magic Sac.

But yet another problem came along. New Mac applications came along that used the more advanced Mac features. One of these was *HyperCard*. It's true—you can't run *HyperCard* on the Magic Sac. You never will, unless Data Pacific finds someone who can replace Dave Small, which isn't likely.

However, Dave Small is now hard at work with his own company, Gadgets by Small, Inc. The first product is called Spectre 128, and Dave says it's more advanced than Magic Sac. Does it run *HyperCard*? I don't know. The product won't be shown for another two weeks at this point. Maybe by next month I'll have a copy and can release some information.

Speaking Of ROMs

Atari has some new ROMs in beta-test for the ST. They are doing extensive testing to make sure they get all the bugs out. Some of the old bugs are already fixed and some nice new features have been added. Among the improvements:

- The floppy disk format will be closer to that of the IBM 3.5 inch disk;
- File copying or deletion can be interrupted with the UNDO key;
- Folders can be renamed;
- The "Show/Print File" option has been rewritten;
- GEM programs can be autobooted from disk;
- The File Selector has been greatly improved.

By using emulators, it possible for the Atari ST to run software written for IBMs, Macs, Atari 8-bit computers and CP/M computers, as well as ST software—probably the widest range of software that any computer currently in production can run.

Copyright© 1988 by David Hawkins. All rights reserved. *David Hawkins is the host of the Atari conference on The WELL (415/332-6106); send email to dhawk. He has one of the first Atari ST 1040s sold in San Francisco goth monitors, an Okimate 20 color printer, and disks all over the room.*

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BY MIKE MARKOWITZ

The DataLink 2400 Internal Modem

Many users don't like a lot of extra wires and boxes cluttering up their computer systems. An external modem may hide unobtrusively under the phone, or (like the Apple Personal Modem) hang inconspicuously from the wall socket. But for neatness, nothing beats an internal modem, tucked into a slot within your computer. You don't have to pay for a case. You don't have to pay for an extra cable. You're buying pure performance.

Meet the DataLink 2400.

This modem was designed for Apple users who are serious about telecommunication and lucky enough to live in regions where the phone lines are not too noisy. Until recently, the move to 2400 baud carried a price tag well beyond the means of common folk. Not only were the modems expensive ($500-700), but many online services slapped heavy surcharges on 2400 baud connect time. The modems are now becoming more affordable, and in many cases, the rates are equivalent.

I found the difference between 1200 and 2400 baud exhilarating. You spend a lot less time waiting for text to be transmitted or received, and this can add up to a perceptible reduction in Those Dreaded Phone Bills.

Hardware

The DataLink 2400 is neatly engineered, with only 13 chips, all socketed. This increases the cost of production, but makes replacement a snap in the unlikely event that a component should fail. Edge connectors are real gold. DIP switches are clearly marked, and overall workmanship is meticulous. The board is packaged in a static-safe bag and coddled in a foam-padded shipping container. A particularly handy feature is a little external connector box that attaches to the back plate of your Apple so that you can disconnect the phone lines without opening the case. A tiny hex wrench is provided, so you can tighten down the nut that holds this connector box firmly in place. A good long modular phone cable is included in the package.

The DataLink 2400 can live in any Apple slot except slots 0 and 3 of the II+, slots 2 and AUX of the IIe, and slot 3 and the memory slot of the IIGS. Software generally expects to find a modem attached to slot #2, so this is the preferred location. Installation is quite easy and the manual provides clear instructions, illustrated with photographs. On the IIGS, you must enter the Control Panel and set the DataLink's slot to "Your Card."

The performance of any modem is largely a function of the software driving it, but I found the difference between 1200 and 2400 baud exhilarating. You spend a lot less time waiting for text to be transmitted or received, and this can add up to a perceptible reduction in Those Dreaded Phone Bills.

Software

The 5.25" disk included with the DataLink contains two different communications programs: *DataTerm* and *OnLine 64*. *DataTerm* is an improved version of the popular shareware program *Talk Is Cheap* by Don Elton. It requires an Apple IIe with 128K or an Apple IIGS. *Online 64* is a simpler program that runs on Apple II+ or IIe systems with only 64K of memory. Experienced users can also directly access the firmware on the card, which includes the Hayes-compatible AT command set.

DataTerm is a sophisticated program, highly regarded by several Apple sysops I spoke with. Most commands are executed with simple open-Apple or closed-Apple keystroke combinations. You can print on-line and construct all kinds of powerful macros. It lacks the point-and-click convenience of newer programs, however, like *MouseTalk* or software written especially for the IIGS. I could not get *MouseTalk* to recognize the DataLink 2400—it only seems to support external modems on the IIGS. The AppleLink Personal Edition (beta test) software worked fine, after I discovered the program recognizes the modem as an Apple Super Serial Card.

The *DataTerm* disk also includes some utilities, such as the public domain programs ALU and BLU, used to pack and unpack files. *FreeWriter*, a little word processor for creating or reading text files, an "analog loopback test" and a modem game.

Applied Engineering is legendary for well-made and well-supported hardware. Its five-year warranty is remarkable in an industry where most vendors don't want to know you after 90 days.

Documentation

The package includes a 69-page user's manual for the modem and 96-page manual for the software. Both are clearly organized and packed with good information. The modem manual, for example, includes a brief tutorial on the ProDOS operating system, and the software manual has an excellent glossary of the rather intimidating terminology of telecommunication. There is a Quick Reference card for the *DataTerm* software and AT firmware commands, and a packet of low-cost special offers from various online information services.

At $239, the AE DataLink 2400 represents an excellent value. Applied Engineering is legendary in the annals of Appledom for well-made and well-supported hardware. The five-year warranty is remarkable in an industry where most vendors don't want to know you after 90 days. Technical Support is accessible, professional and not toll-free. (Applied Engineering, P.O. Box 5100, Carrollton, TX 75011, 214/241-6060.) □

Mike Markowitz is a computer engineer for a large Southern California aerospace firm. He has been writing about Apple II computing since 1984. You can reach him on AppleLike (MOUSKOWITZ), The Source (SIG060) or GEnie (M.MARKOWITZ2).

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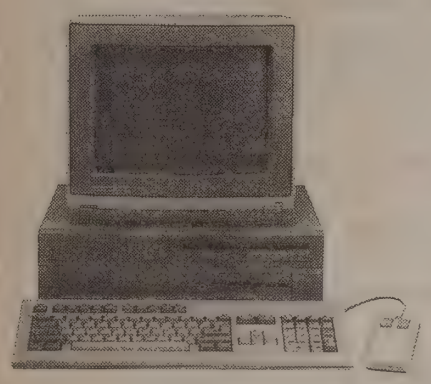
Amiga 2000



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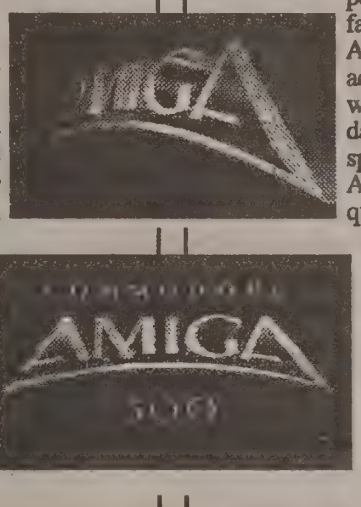

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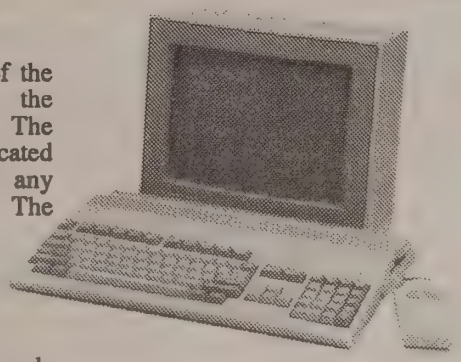

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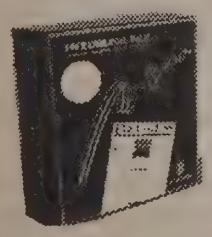

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BY MATTHEW LEEDS

DiskMaster: File-Handling With Ease And Versatility

There always seem to be two camps when you start talking with Amiga users. On the one side are those who enjoy using a graphical interface; the Windows, Icons, Menus and Pointer (mouse) used by Workbench. On the other side are those who prefer a command line driven environment; they disdain a graphical interface and call it WIMP. They claim that there are things that just cannot be done from the Amiga's Workbench and they are right. Try moving fonts or libraries around using icons.

This does not mean that third party developers have accepted this state of affairs with grace. Early on programs like *DirUtility*, *CLImate* and *Zing!* provided Amiga users with the means to gain control over files that had no icons associated with them. Programs of this type have gained in sophistication, and a new application called *DiskMaster* brings a remarkable amount of power to this genre.

DiskMaster took a little getting used to. It offers a combination of menus and gadgets in its interface. Directory utilities let you view and manipulate files by clicking directly on them and then selecting the operation you want to perform. Want to copy files from one disk to another? Just click on the filenames you want to copy and then click on the COPY gadget. Want to read a file? Just click on the filename, then on the READ gadget.

Most directory utilities offer the basics of copying, deleting, making new sub-directories, displaying picture files, reading or printing files, renaming files and perhaps printing out directories. A few include working with the more common archiving or compressing programs such as ARC, ZOO or PAK.

DiskMaster handles all of this easily and offers much more. Most directory utilities have a fixed set of gadgets for storage devices. For example, some do not recognize more than one hard disk or partition. Others do not recognize recoverable RAM disks. *DiskMaster* examines the system list and displays gadgets for each device mounted. While some directory utilities will display only some types of IFF pictures, *DiskMaster* handles all types including HAM overscan and prints them as well. You can even control the size of the printout.

One of the nicest features is the option to preserve the date/time and protection bits on files while copying them. Another useful addition is the search feature that will hunt for the location of files by name, date, size or other attributes. And *DiskMaster* is the only directory utility I've seen that will play 8SVX IFF sound files.

There are a few changes I would make to *DiskMaster* for the future. Although it does allow you to configure gadgets to call external commands, the string executed can only be eight characters in length and must be in the C: directory. This is an awkward restriction and should be removed. *DiskMaster* also tends to buffer mouse clicks, resulting in events occasionally occurring that you might not have intended. I've not had any disasters as a result of this, just delays in accomplishing my work.

Overall, *DiskMaster* is my directory utility of choice. It has replaced *CLImate* in the root directory of my hard disk and gets a thorough workout at both home and office. If you don't like having to remember filenames and command paths while working with non-icon files, or just prefer to stay in a Workbench-like environment, I recommend it.

DiskMaster is distributed by Progressive Peripherals & Software. There have been changes at PP&S as well. Dan Browning has left PP&S to form his own company, Precision INC. This is the North American arm of Precision Software Ltd., the makers of *Superbase Personal* and *Professional*, and *LOGiSTiK*. Distribution and support for these products will now be handled by Precision INC.

If you don't like having to remember filenames and command paths while working with non-icon files, or just prefer to stay in a Workbench-like environment, DiskMaster is for you.

Other Product News

Electronic Arts has stepped out of the stone age by announcing the removal of all copy protection from its creativity titles. This includes the entire *Deluxe* line of Amiga software. Current owners may obtain protection-free versions of their software by contacting EA.

EA has also released the hottest new game of the season, *F/A-18 Interceptor*. This is an air combat simulator based on the F-18 Hornet and the F-16 Falcon. Every seasoned game player I've spoken to has been raving about *Interceptor*. This game is a must-have.

The Commodore A2024 monitor was announced several months ago. It is a 13-inch gray scale monitor that supports several resolution modes including 1000 X 800. It has not been released yet, but I've worked with a pre-release version and it is impressive. The same technology has been licensed to Moniterm, a leading manufacturer of high resolution monitors. The Viking 1 is a 19-inch gray scale monitor with 1008 X 800 by 2-bit resolution. Although it will work with all Amigas, its case is exactly the same width as the A2000, and it looks very impressive sitting on top of same. List price will be $1,995.

The *3D Animation Toolkit* from Lange-Miller Computer Graphics has been upgraded to support the new features in *VideoScape* 2.0. All registered owners will receive an upgrade notice and free upgrade to version 1.1.

Rumors, Vicious Rumors

Rumors are running very hot and heavy that by the time you read this Commodore will have released AmigaDOS 1.3. Developers will have received the Omega 8 pre-release version for final testing and feedback, the documentation is done and the only details left are the distribution arrangements. You will want to get a manual along with the the new disks, as there are substantial changes to many commands as well as a large number of new ones, some last-minute additions.

Finally, I'd like to address the subject of rumors. Most magazines and newspapers that cover the computer industry include some type of rumor column, either as a separate feature or as a part of the regular coverage in a contributor's column. These columns sometimes provide a useful service, alerting users to trends and developments in the industry. Sometimes they have the potential to damage either individuals or companies, by leaking information earlier than desired by those covered or by publishing flatly untrue information.

Two examples may serve to explain the problem. The premature announcement of an upgrade to an existing product will cut the sales of the existing version. Should the announcement be untrue, or too early in the development cycle of the upgrade, the cash flow of the developer could be severely impacted. In another common situation, the announcement of an individual's intent to leave Company A and join Company B, if untrue, may have a disastrous effect on relations between the individual and Company A.

I recently had a conversation with the editor of a

Matthew Leeds has been involved in the high tech field since he blew up his bedroom playing with a children's chemistry kit. He has been using Commodore computers since 1982 and has a strong interest in photography, video, graphics and related fields. He currently works for Infinity Software.

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major Amiga publication that has a regular rumor section. His magazine prints a disclaimer that all of the material in the rumors section is provided strictly for entertainment value, not as news, and that the publication cannot be held accountable for it.

He also states that any attempt to verify any of the content of the rumors column would render that information "not a rumor" and therefore force its exclusion from the column. The magazine has even gone so far as to hide the identity of the author of the column.

This is a delicate area, and finding the border between news and rumor, fact and fiction, information providing and pandering is difficult. The difference between the *New York Times* and the *National Enquirer* is plain to most people, but is there a place for this kind of "entertainment" in computer journalism? How many people ignore the disclaimer and take rumor for fact? After all, where there is smoke there must be fire, they figure. Is it ethical to shield this kind of unsubstantiated gossip behind the flimsy rationale of reader demand or the need to stay competitive?

This is a delicate area, and finding the border between news and rumor, fact and fiction, information providing and pandering is difficult. The difference between the New York Times and the National Enquirer is plain to most people, but is there a place for this kind of "entertainment" in computer journalism? How many people ignore the disclaimer and take rumor for fact? After all, where there is smoke there must be fire, they figure. Is it ethical to shield this kind of unsubstantiated gossip behind the flimsy rationale of reader demand or the need to stay competitive?

If I put into my column comments regarding a particular Amiga magazine, comments that could not be substantiated but that would have a negative effect on the cash flow and public standing of that publication and its editor, and then stated that they were only being published for entertainment value and that I had made no attempt to substantiate them, what would you think of my professionalism? What would you think of my chances in court should I be sued for libel?

I am very interested in hearing your comments on this topic. My personal opinion is that there is a place for rumor in this industry, but reporting rumor requires a scrupulous attempt to weigh the needs of the readers against those of the industry. I further believe that every attempt should be made to substantiate rumors, and that it is a flimsy excuse to say that any attempt to do so renders them no longer rumors. They still have the same value to the readers; in fact, more so now as they deserve greater credence. Anything less is pandering. Just for the record, *Webster's 7th Collegiate Dictionary* defines pandering as "catering to or exploiting the weakness of others." What do you think?

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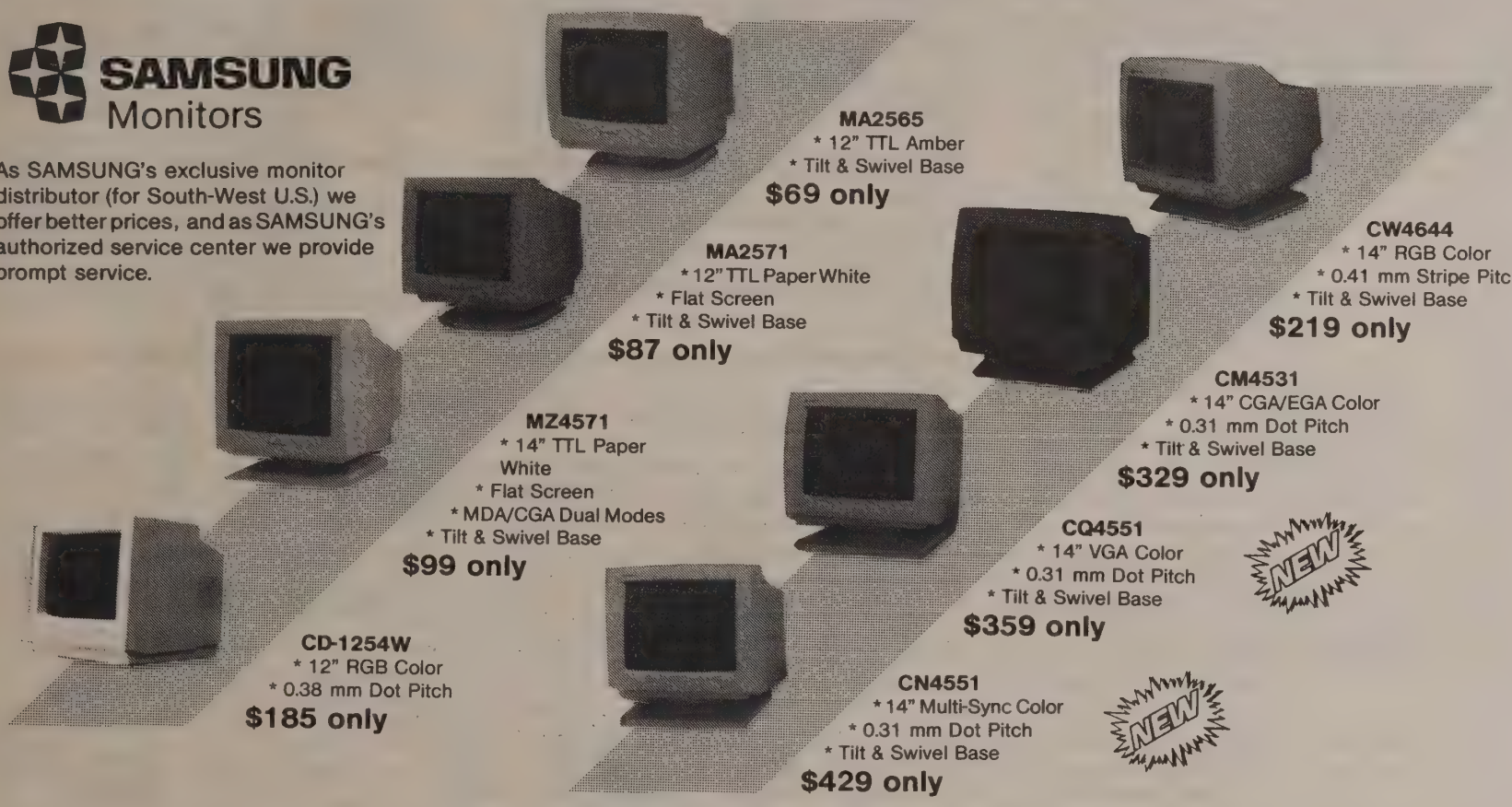

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USER GROUP NETWORK

BY MARY EISENHART

The All-New, All-South User Group Column

Yes, folks, in the interest of bringing you more news from closer to home, this column will now take a more local, less statewide approach to reporting on user group and BBS activity. So now's the time to send us that notice of the seminar, swap meet, disk exchange, EPROM burn, or other exciting event in your group's future that you'd like to tell the world about.

This, of course, is not news to the **MacValley Users Group**, which has been diligently sending announcements for some time. MacValley's October 18 meeting will be of particular interest to the money-minded, since it will feature a presentation by Monogram of its *Business Sense* financial management software package. The meeting, as always, takes place at 7:30 pm at the Burbank High School cafeteria; call **David Lagerson** at (818)882-4467 for more information.

Adele Field of **TUG-NET**, one of the Southland's oldest and largest groups, sends along an update on the club's recent doings. "We support CP/M and MS-DOS: many of our members have both systems; some even have Macintoshes also. No matter what computer someone's using, we'll try to give them support and match them with other knowledgeable users. Orphans welcome."

Adele adds: "We're planning classes in W/P, desktop publishing, telecommunications, and database management, and have experts in all areas available to offer help to novices or anyone who needs it. For information, call **Dubb Heath** at (818)894-7835, or just come to a meeting!" TUG-NET has a new meeting place at Life Support Associates, 13741 Foothill Blvd. #200, Sylmar. The IBM and compatibles group meets on the second Thursday of the month at 7 pm; the FOG-affiliated CP/M group meets at 7 pm on the third Thursday, and supports Kaypro, Osborne, Commodore and other CP/M machines.

On the back of a review of **Lyle Lovett**'s *Pontiac* lp (hey, we like music. We like picture postcards too, if anybody wants to send those) comes a note from **Harry Tischler**, who invites the PC-minded to check out the next meeting of the **Valley IBM/Compatible User's Group.** VICUG meets on fourth Fridays from 7:30 to 10 pm, at 7040 N. Sepulveda Blvd. in Van Nuys. While there's no membership fee for this group, the person at the door will happily take your $1 donation when you arrive. You can call Harry at (818)997-6000 if you'd like more information on VICUG.

Moving out of the Valley, we'd like to remind the business users among you to check out the **Office Technologies Conference/Corpcon**, offering the merged resources of two major trade shows in an even bigger business-oriented extravaganza. If you'd like to see the latest in office technology applications of all types from a host of vendors, this is the place, and it's all happening from November 8-10 at the Los Angeles Convention Center. Keynote speaker will be **John B. Dykeman,** associate publisher and editorial director of *Modern Office Technology*. Other confirmed speakers include **Michael M. Makieve**, president of PacTel Information Systems/Computer Division, **Ralph K. Ungermann**, president of Ungermann-Bass, and **Herbert Baskin**, president of General Parametrics Corporation.

The show's promoters are particularly interested in working with user groups at this and at future shows (such as the **Engineering Workstations Conference** at the LA Hilton November 29-December 1); if your group is interested, call **Laura Thomas** at (213)450-0500. And if you just remembered that you've got a product that ought to be at the show, call **Eileen Wicker**, who informs me that there's still a little exhibit space available, at the same number.

From Bakersfield comes various news from the **Kern Independent PC User Group**, which sends along its newsletter, *Bits & Bytes*. Regular meetings take place on second Thursdays at the Kern County Superintendent of Schools Boardroom, 5801 Sundale Avenue, 7-9 pm. The club also has Special Interest Groups for new users as well as for *Lotus* and *AutoCAD* enthusiasts and/or problem-havers, and a Database SIG which will spend its October meeting looking at *PC-File*. For *Lotus* SIG information, call Frank Opitz at (805)871-8141; for *AutoCAD*, call Archie Smith at (805)832-0576; for New Users, call Herb Duey at (805)328-3302. Barbara Duey (805/397-6189) is the person to call for general information SIGs, and she'll also help if you'd like to set up one of your own.

Fred Bellomy of Santa Barbara sends along the **Theos/Oasis Users Group News**, which offers various items of interest to devotees of the THEOS multiuser operating system. The club, which rejoices in the name of THUG among friends, offers an introductory disk, THUG17, which provides a collection of "safe" programs, a discussion of what else is in the group's library, and an introduction to the operating system's features and capabilities.

Fred proclaims that the time has come for THEOS developers to create the product to take the O/S out of the workalike doldrums and also out of its small comfortable niche. Groupware, he figures, is the way to go: "What we need is a revolutionary product concept that makes effective use of the unique multi-user capabilities built into THEOS. Remember what *Visicalc* [the first spreadsheet] did for the microcomputer software industry a decade ago? THEOS would be an excellent vehicle for some sort of 'groupware' product where multiple users interact and help one another online. Technical excellence of such a revolutionary product would need to be joined by marketing muscle to repeat the *Visicalc* miracle, though. With all the smart entrepreneurial talent we have out there, we must have many a genius who could do it."

So if you agree with Fred that it's time for the THEOS miracle, or want to know more about this versatile and little-known operating system, write him at the Theos/Oasis Users Group, P.O. Box 2400, Santa Barbara, CA 93120.

On the Commodore front, we received listings from two groups in the Long Beach area this month. The **South Bay Commodore User's Group** meets at 7 pm on second Fridays in the Mercury Savings conference room, at the corner of 230th and Hawthorne Boulevard in Torrance; modemers, call the club's BBS at (213)545-8653 for further information. Meanwhile, the **Commodore Helpers of Long Beach** are holding their meetings on second Saturdays in yet another Mercury Savings, but this one's at 4140 Long Beach Boulevard in Long Beach. Meetings are from 9 am till noon, and you can call (213)424-0508 if you'd like to know more.

That's about it for now; please keep those cards and letters coming in, and we'll do our best to pass the information along for you. Send the US Mail to User Group Network, 5951 Canning Street, Oakland, CA 94609, and send that email to **microx** on The WELL (415)332-6106, uucp users can send us email at {pacbell, hplabs, ucbvax, apple}! well! microx. Thanks, and see you all next month.

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Cassia Express. (065) 344-9163. 300/1200/2400 24 hrs. Singapore. Sysop: N.M.Rahman

FidoNet Argentina (054). (011) 541-22-419. 8-N-1 3 PM-11 AM PST. The 1st fido node in Argentina has over 450 subscribers. Specializes in issues from S.A. PD software library to d-load. Sysop: Pable Kleinman

Remote Bulletin Board (Singapore). (065) 445-1646. 9600/2400/1200 24 hrs. 218 MB Online (IBM upload/download). Sysop: Umar A. Rahman

203

Terrapin Station. (203) 656-0134. Grateful Dead Board. Sysop: Klaus and Gretchen Bender.

209

Oasis Software Library.(209), 823-2803, 300/1200/2400, 8-N-1, 24 hrs. Shareware and PD for IBMs and compatibles. No fee but registration required. Sysop: Tim Campi.

Silicon Realms. (209) 754-5530. 300/(1200 Soon) 9:30AM to 6:30AM.Formerly Motherload 64. Commodore, PET & Plus/4. Programmers board, Continuing & Short Story boards, FRPG. Sysop: Joe Commodore

SMERDON'S CASEL (California Attractions, Sights and Entertainment Listing), (209) 521-4910, 8-N-1, 24 hrs., 300/1200/2400. Information on over 700 things to do and see in California. Free. Sysop: Sharon Smerdon.

The Backdoor BBS.(209), 952-9430, 300/1200/2400, 8-N-1, 24 hrs. MS-DOS oriented board. Lots of software, online chess game, much more. Sysop: Randall Fox.

212

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213

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Beaver Creek. (213) 437-1410. 8-N-1 All but 4-9 PM. Sysop: John Campbell

Beta RBBS. (213) 393-9777. 1200/2400. Free entertainment BBS. Audio, video, DJ, music, movies, news and discussions. Sysop: Jason Lin.

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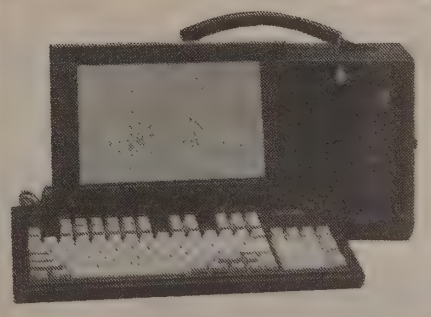

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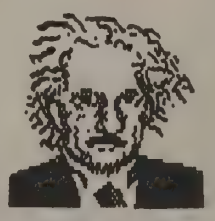

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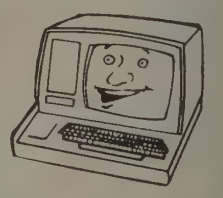

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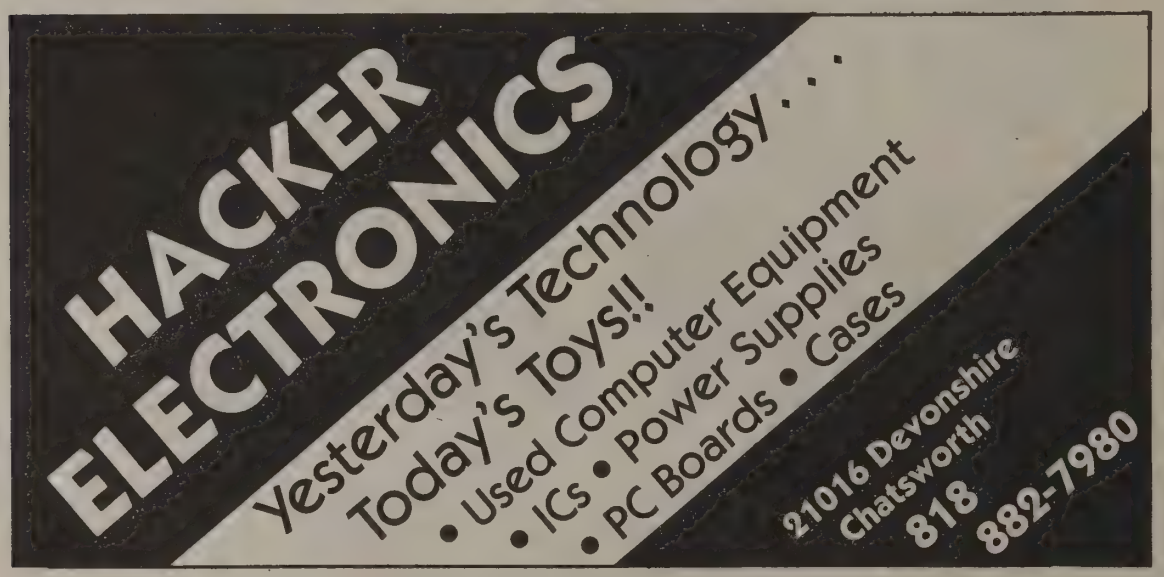

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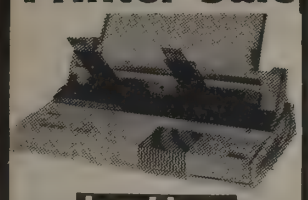

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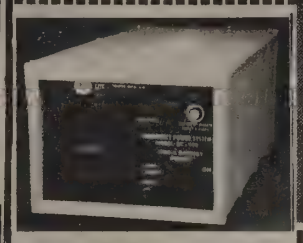

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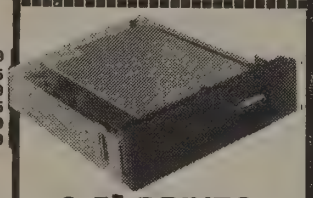

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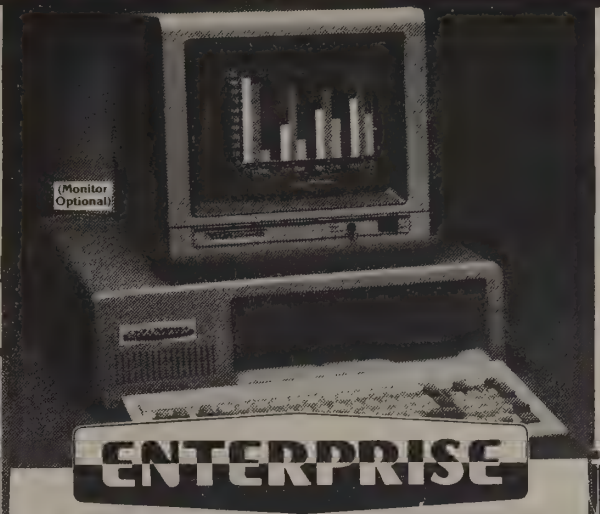

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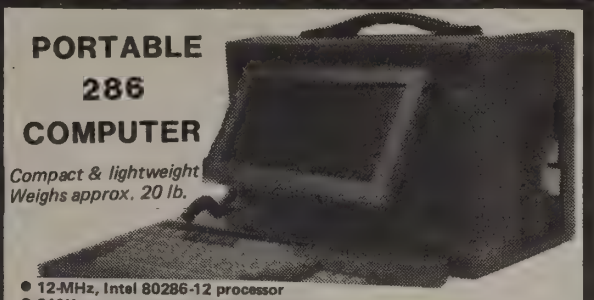

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Genoa Level 7 EGA/VGA card $199
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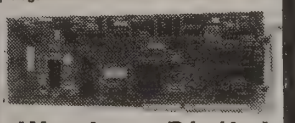

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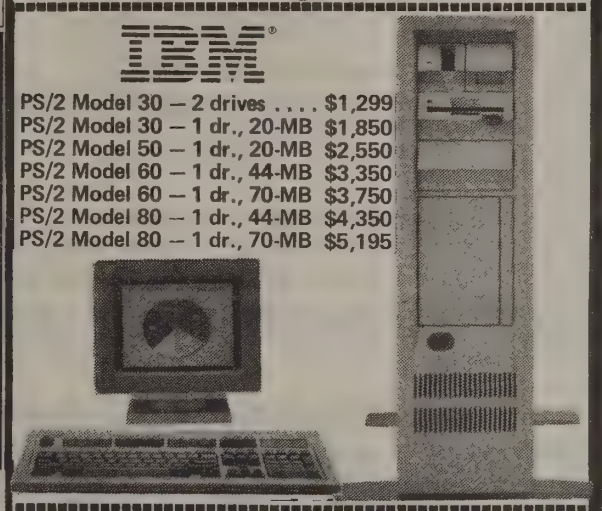

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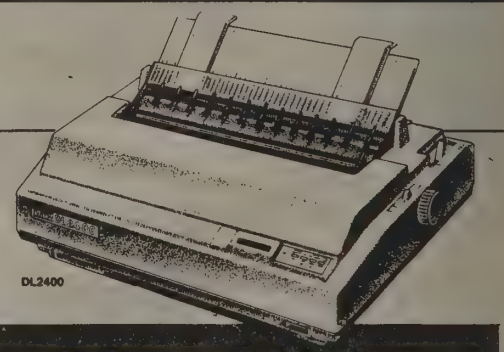

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The Software Bank. (818) 993-5516. 300 to 9600. Atari ST only. 65 megs. Node #95 of FNET. Exchg. messages & files w/users on other FNET BBS nationwide thru our network. Sysop: The Software Bank

TUG-NET (Technical & User Groups Network). (818) 882-6045. MS/DOS and CP/M supported. Voice: (818) 957-4721.

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ASSOCIATIONS

AACCPAC Accounting SIG Of UCLA Users Group. Meeting: 2nd Wednesdays @ 7 PM. Users, CPAs, consultants and other business people interested in sharing information on Computer Associates ACCPAC Accounting Software. Call Donna Miller, (213) 393-0244.

California Educational Computing Consortium CCCE. For information write Herb Garrett, Long Beach City College, 4901 E. Carson Street, Long Beach, CA 90808.

Computer Professionals for Social Responsibility. Meetings: Most third Wed. 7:30 PM UCLA. CPSR/LS focuses on computer system risk and reliability and on privacy and civil liberties issues.

International Blind Users Group (I-BUG). Part of the National Association of Blind and Visually Impaired Computer Users. Membership consists of access to CompuHelp, a 24 hour online database/bulletin board system, and receiving CompuHelp On-Disk, a modem database-bulletin board system on two double-sided disks. (916) 783-0364 or 645-8036.

L.A. Real-Time Problem Solvers. Meetings: 4th Saturdays, 10 AM to 1 PM. Hawthorne Public Library, 12700 S. Greviellea Ave., Hawthorne. We speak A/D, SBC, RISC, FORTH and C. We support real-time, real-world hardware and software problem solving, such as firmware, device drivers, instrumentation and very smart toasters. (213) 371-0589.

North Orange County Computer Club (NOCCC) Meetings: Monthly on Sunday, @ Chapman College near downtown Orange. Help for beginners, SIGs, educational activities, monthly newsletter. Open to any computer user. (714) 998-8080.

Realtor Microcomputer UG (RUG). Meetings: 4th Thurs. 7 PM Pasadena BOR, cnr. Orange Grove & Los Robles, Pasadena, CA.

USER GROUPS

AMIGA

Amiga Friends. Meetings: 3rd Sun. Rancho Santiago College, Rm R-124, 17th & Bristol, Santa Ana. Call for current meeting info: (714) 775-7237 (24 hrs.) or write: P.O. Box 4186, Huntington Beach, CA 92605.

Amiga Special Interest Group. Meetings: 1st Sunday except holidays. Chapman College, 333 N. Glassell, Orange, CA. Amiga SIG is part of the North Orange County Computer Club, a thousand member organization together 12 years.

Amiga Users Group of Long Beach. Meetings: 3rd Sun. 1-4 PM Mid-Cities Nat'l Bank, NE corner Lakewood & Artesian, Bellflower. We have a class that meets the second Sat of each month,1 to 4 pm. Something different every month.

Bits & Pieces Amiga Group of Anaheim. Meetings: 1st & 3rd Sat. 10 AM—2 PM 1130-A North Kraemer Blvd., Anaheim, CA. Sponsored by Transnational Electronics. BBS: (714) 630-8897.

LAAUG-Los Angeles Amiga Users Group. Meeting: 3rd Wednesdays @ 7:30 PM. Veteran's Auditorium at Overland Ave. & Culver Blvd. Many SIGs, Rookie, music, video, monthly PD disks.

Pacific Computer Club. Meetings: 2nd Thurs. 7 PM 391 S. Madison, Pasadena, CA.

South Orange Commodore Klub (SOCK). Meetings: 3rd Saturday 9:00 A.M. Union Savings, 23688 El Toro Road, El Toro, CA. For Commodore 64/128 users and Amiga users. One-hour general meeting is followed by separate group meetings for each.

AMSTRAD

AMSTRAD User Group, U.S.A. Meetings: 4th Tues. 7 PM & 8 PM Venice High School, 13000 Venice Blvd. Since Sears dropped the PCW8256, group formed so users/owners can support each other.

APPLE

Original Apple Corps. Meetings: 2nd Sun. 12:00 Noon 3rd Floor Community Room, Santa Monica Mall. First Apple group ever. SIGs for AppleWorks, Telecomm, Educators, Macintosh. Call Fred Duffy at (213) 396-5515.

Tri-City Apple Users Group. Meetings: 3rd Thurs., 7:00 PM, 50 N. Hill Ave., Pasedena. Call (818) 846-6682. Friendly Apple II experts.

ATARI

Atari Computer Association Of Orange County. Meetings: 2nd Sun. Rancho Santiago College, Room W101, Santa Ana. BBS: (714) 540-7378.

Pasadena Area Local Atari Computer Enthusiasts (PALACE). Atari 8-bit and ST support. Chris Roberts, (818) 359-1697, 220 N. Encinitas Ave., Monrovia, CA.

Santa Clara Valley Atari Computer Enthusiasts (SCVACE). Meetings: 1st Thurs. 7PM Mint Canyon Moose Lodge, 18000 W. Sierra Hwy, Canyon Country. 8-bit group. Atari ST special group now forming.

South Bay Atari ST Computer Club. Meetings: last Mon. 8 PM 15331 Praire Ave. Lawndale.

COMMODORE

Bits & Pieces Commodore Computer Group of Anaheim. Meetings: each Tues 6:30 PM 1130-A N. Kraemer Blvd. (Kraemer & La Palma), Anaheim. Offers public domain software, demonstrations, interactive training on your computer. $33 annual dues.

Commodore 64 Software Users Group. For new Commodore owners. One on one help. Call (714) 531-2977 for info.

Commodore Helpers of Long Beach. Meetings: 2nd Saturdays, 9 am-noon, Mercury Savings & Loan, 4140 Long Beach Blvd, Long Beach. Beginners group. (213) 424-0508.

Mother Lode Commodore Users Group. Meetings: 2nd & 3rd Thursdays. Calaveras County Water District Board Room. Supports the Commodore PET, VIC, 64, Plus/4, C-16 & 128.

Nebula 6. Call BBS for more info & online glance at what group offers. BBS (714) 595-6577 300/1200/2400. Write for info: P.O. Box 1071, Walnut, CA 91788.

OKOK Computer Users Group. Meetings: 2nd Wed. 7-9 PM Altadena Public Library, 600 E. Mariposa. Call (818) 794-3243. Serves, Osborne, Kaypro, Commodore C128, PCs and compatibles and both MS-DOS and CP/M operating systems.

Orange County Commodore Technical Users Group (C-TUG). Meetings: 4th Sun. 11:00 AM ,4th & Tustin, P.O. 1497, Costa Mesa, CA . 92628. Newsletter; 2 BBS's; door prizes; SIGs in Comal; DOS protection data bases; wpros; & BASIC. Custom software, ROM chips.

Pacific Computer Club. Meetings: 2nd Thurs. 7 PM 391 S. Madison, Pasadena, CA.

Pasadena Commodore Computer Club. Meetings: 1st and 3rd Weds. 7:00 PM Circadian Room, Pasadena City College Cafeteria. Colorado Blvd & Hill, Pasadena. Call (818) 447-2212 after 2:30 PST or write P.O. Box 163, Arcadia, CA 91006.Supports C64 and 128 machines.

South Bay Commodore User's Group. Meetings: 2nd Fridays, 7 pm, Conference room of Mercury Savings at 22939 Hawthorne Blvd., Torrance, northwest corner of 230th St. and Hawthorne Blvd. (213) 324-8357.

South California Commodore Users Group. Meetings: 3rd Tuesday each month, 7:00 P.M., MidCities National Bank, Lakewood and Artesia Blvds., Bellflower, CA.

South Orange Commodore Klub (SOCK). Meetings: 3rd Saturday, 9:00 A.M., Union Savings, 23688 El Toro Road, El Toro, CA. For Commodore 64/128 users and Amiga users. One-hour general meeting is followed by separate group meetings for each.

dBASE

Valley West dBASE Users Group. Meetings: 3rd Mon. 7:00 PM Blue Cross Of California, 21555 Oxnard St., Woodland Hills. Call (818) 343-9033 or write P.O. Box 16971, Encino, CA 91416.

DEC

DECUS Rainbow Pacific PC-LUG. Meetings: 2nd Wed. 7:00 PM Digital Equipment Corporation, 6101 W. Centinela, Ave., Culver City. Digital Equipment Computer Users Society. Free to DEC users. Call Karen Danforth (818) 787-8736 or write P.O. Box 2278, Van Nuys, CA 91404.

EPSON

San Fernando Valley Epson QX User Group. Meetings: 3rd Tues. 7 PM Fallbrook Sq. Comm. Rm., Fallbroook Mall, 6633 Fallbrook Ave. Canoga Park.

IBM AND COMPATIBLES

Calsonic PC Club. Meetings: 1st Tues. 5:15 PM 9 Holland, Irvine, CA.

Greater South Bay PC User's Group. Third Thursdays, @ 7 PM, Building behind Christ the King Lutheran Church, 2706 W. 182nd St. Torrance. Newsleter, BBS, more! Guests welcome. Call for more information. Evening: (213) 532-2123.

IBM & Compatibles Users Group-Ontario Area. For information call: (714) 982-1270.

Kenny's Computer Club. Meetings: Each Saturday 8:00 A.M. t133 Locust St. Apt. 19, Long Beach, CA. For those with an interest in graphics, DTP, Lotus, Autocad, games, databases and word processing.

Kern Independent User Group. Meetings: Write Kern Independent PC User Group, P.O. Box 2780, Bakersfield, CA 93303.

Long Beach IBM Users Group. Meetings: 3rd Tuesdays. 7 PM, Woodruff Medical Plaza, 3816 Woodruff Ave., Room A, Long Beach. Contact: Jim Wells.

OKOK Computer Users Group. Meetings: 2nd Wed. 7-9 PM Altadena Public Library, 600 E. Mariposa. Call (818) 794-3243. Serves, Osborne, Kaypro, Commodore C128, PCs and compatibles and both MS-DOS and C/PM operating systems.

Orange Coast IBM PC User Group. Meetings: last Sat. 9 AM Science Hall, Orange Coast College, Costa Mesa, CA.

Orange County IBM PC Users Group. Meetings: 2nd Thursdays 7:30 PM. Bradford Retirement Community Center, 1180 N. Bradford, Placentia. Meetings feature guest speakers on hardware and software topics related to the interest of our members. Other activities include sharing tips and problems, access to club library and a club newsletter. Call: Mike Lyons, 2114 W. LaPalma, Anaheim, CA 92801. (714) 774-3236.

Pacific Computer Club. Meetings: 2nd Thurs. 7PM 391 S. Madison, Pasadena, CA.

Pasadena IBM Users' Group. Meetings: 3rd. Wed. CalTech, Bridge Bldg., Rm. 201.

PC*UG Computer Club. For Hughes Aircraft Employees. Call (213) 334-3422.

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Saddleback College IBM-PC Users Group. Meetings: 3rd Sat. Room 210, Business and General Science Building, Saddleback College, Mission Viejo. Call Susan Gordon at (714) 582-4650.

South Bay Users Group (SBUG). Meetings: 1st Sun. Mercury Savings, Long Beach, CA.

South County PC Users Group. Meetings: 3rd Sat. 9 AM Great American Savings, 23688 El Toro Rd., El Toro, CA.

The IBM & Compatibles User Group (ICUG). Meetings: 4th Thurs. 6:30 PM or 7:30 CAL Lutheran Univ., 60 W. Olsen Rd., Thousand Oaks. Group is 5 yrs. old & has 150 members Meetings begin at 6:30 for beginners, 7:30 regular members.

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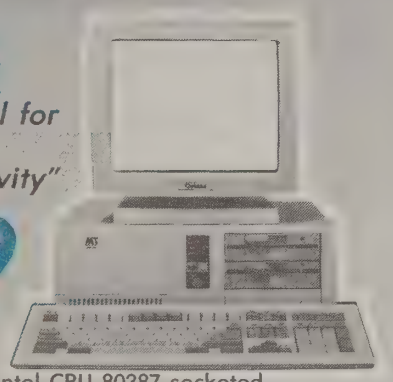

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TRS Nybblers. Meetings: 1st Wed. 7 PM 2006 W. Magnolia, Burbank. Supports MS-DOS, CP/M, IBM or IBM clones.

TUG-NET. Meetings: 7 pm, MS/DOS SIG—2nd Thursdays; CP/M SIG—3rd Thursdays. Life Support Associates, 13741 Foothill Blvd. #200, Sylmar, CA. Classes planned in W/P, DTP, telecommunications, database management. CP/M and DOS. Orphans welcome. (818) 894-7835.

Valley IBM/Compatible User's Group. (VICUG) Meetings: 4th Fridays, 7:30 pm-10 pm, Mercury Savings Bank, 7040 N. Sepulveda Blvd., Van Nuys. No membership fee, dollar donation at door appreciated. (818) 997-6000.

KAYPRO

OKOK Computer Users Group. Meetings: 2nd Wed. 7-9 PM Altadena Public Library, 600 E. Mariposa. Call (818) 794-3243. Serves, Osborne, Kaypro, Commodore C128, PCs and compatibles and both MS-DOS and C/PM operating systems.

LEADING EDGE

Leading Edge Computer User Group of Ventura County. Meetings: 2nd. Sat. 10 AM Camarillo Library, 3100 Ponderosa Dr., Camarillo, CA. Lectures on hard/floppy disk usage; program demos; beginner classes. Single: $20, couple $25.

MACINTOSH

California State University Macintosh Users Group. Meetings: California State University, Long Beach.

LAMG (Los Angeles Macintosh Group). Meetings: Call (213) 278-LAMG or write 12021 Wilshire Blvd. #349, Los Angeles, CA 90025.

MacValley. Meetings: 3rd Tues. 7:30 PM Burbank High School Cafeteria at Burbank Blvd. and Third St. Call David Lagerson, (818) 9882-4467 r write P.O. Box 4279, Burbank, CA 91503.

Original Apple Corps. Meetings: 2nd Sun. 12:00 Noon 3rd Floor Community Room, Santa Monica Mall. First Apple group ever. SIGs for AppleWorks, Telecomm, Educators, Macintosh. Call Fred Duffy at (213) 396-5515.

SBAMUG (South Bay Apple Mac User Group) Meetings: Last Wednesday of each month, 7:30 PM, Ticor Title, 4240 Artesia Blvd., Torrance. Call (213) 316-7738.

South Coast Macintosh Users Group. Meetings: First Tuesdays, @ 7 PM, Goleta Library. Publishes a newsletter with reviews, offers advice, support for Mac users, discounts at local dealers. Call: Vince Leamons, 685-7295.

West Orange County Macintosh Users Group (WOCMUG). Meetings: Last Tuesday. F & M Bank in Rossmore Center, Orange County, CA.

NETWARE

Orange County Network Users Group (OCNET). Meetings: 2nd Tues. Wyle Labs, Irvine CA. Open to users, consultants, all interested in NETWARE. Call Mark at (714) 955-0616

Netware User Group Los Angeles (LOSNET). Meetings: 2nd. Wednesdays. Welcomes consultants, CPA's, dealers and users interested in sharing information on NETWARE and related products. Call Fane, (213) 452-1335. 2716 Ocean Park Blvd, Santa Monica 90405.

OPEN SYSTEMS

Open Systems Accounting, So. Cal Users Group (OSASCUG). Meetings: 4th Wed. Wyle Labs, Irvine, CA. Users of Open Systems, Altos Accountant, CADO, & Rexon accounting software. Open to end users, dealers and consultants. Call Mark at (714) 955-1724.

OSAS Systems Users Group Los Angeles (OSASUGLA). Meetings: 1st Wednesdays. Welcomes consultants, CPA's, dealers, users and QI's interested in sharing information on OSAS and related products. Call Fane, (213) 452-1335. 2716 Ocean Park Blvd., Santa Monica 90405.

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LA 99er Computer Group, 4th Wednesdays, August 24, Sept. 28, Oct. 26. @ 7:15 PM, Torrance Public Library, Torrance Blvd. @ Madronna. Call: Teresa Masters, (213) 271-6930.

San Fernando Valley TI-99/4A User Group. Meetings: 2nd Wed. 7:30 PM Docter's Conf. Rm., Sherman Oaks Hospital, 4929 Van Nuys Blvd. Call for info: (818) 248-9558.

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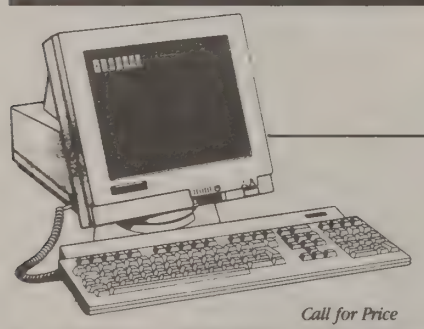
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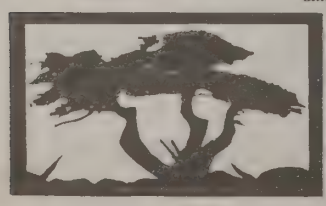

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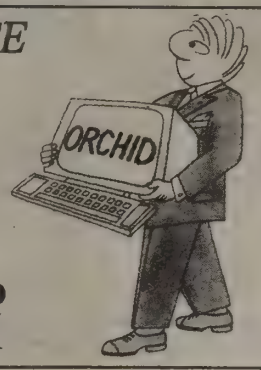

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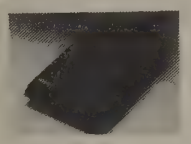

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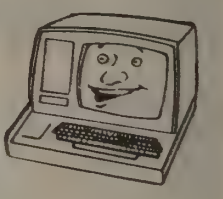

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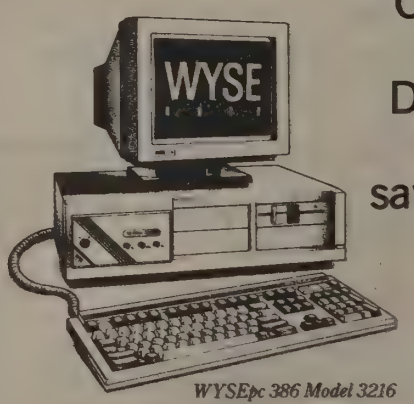

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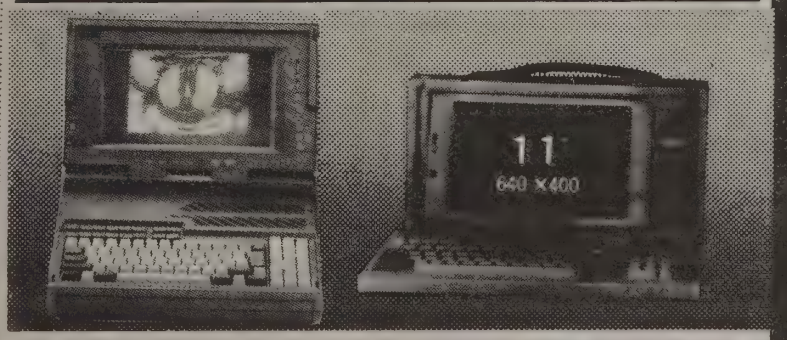

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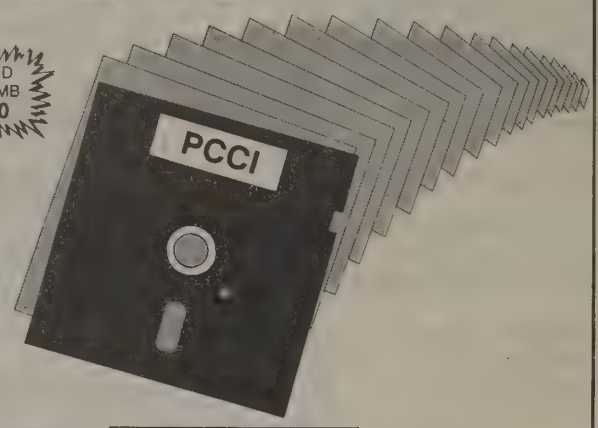

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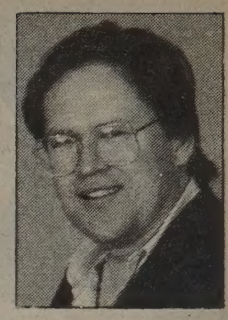
DVORAK'S LAST COLUMN • BY JOHN C. DVORAK

In Search Of The Feminine Computer, Part II



Or—What Did I Do To Deserve This Abuse?
I Only Work Here, Ma'am!

A couple of months ago I ran a longish letter from Jess Ivanhoe who suggested the design of a feminine computer: one designed with females in mind, oriented towards self improvement and produced in designer colors. According to Ivanhoe, it needs to be something "chic and fashionable."

Well, golly gee whiz, this mere suggestion got half of the women in Northern California all hot and bothered. It must have been Ivanhoe's tone.

Or perhaps it was simply because he was a male. I wonder what the response would have been if the letter were composed by a woman?

Here's some of the feedback (good and bad) to the Ivanhoe letter:

What About Fingernails?

I do not believe there is any need for a "woman's" computer as A. Jesse Ivanhoe suggests (with one exception which I will mention later). Reading his letter, I get the feeling he has visions of little pink icons along with recipe-filer-in-ROM and a floral zippered carrying case. I suspect what women REALLY want in computers is a better keyboard. Today's keyboards are too big overall with key caps which are too big and not enough space between the keys. If I type the way I'm supposed to type, there's no place for my fingernails go. Look at the Selectric II if you want to see a good keyboard. Lest you think I'm "just a secretary," I'm a senior systems programmer with a Computer Science degree.

—Jennifer Freeman, San Francisco

Column For Dogs

Nice job stereotyping men and women who use computers. Boy, you're right! Women could loosen up a bit and spend their time perfecting the California Cooler mystique. May you spend your afterlife with Spuds McKenzie. And may he use the paper that column was printed on as a fun-loving dog will.

—A.M. Black, Pittsburgh, PA

Don't Call Me Gal!

Oh come, come (Sir) Ivanhoe of Walnut Creek. Where's your vision? Could it be clouded by that primordial slime whence you've surely crawled? I want to congratulate you for thinking like a stegosaurus. You remember it: the one with the brain in its head and a brain in its tail! Oh, and John. Don't call me "gal," call me doctor!

—N.J.Membrez, PhD, Santa Cruz

Eh? What's up doc?

Don't Call Me Gal, Part II

I haven't got the time to do this—but I really must! To begin with, it is the head space that calls women "gals" that loses them. We're not gals, girls, chicks or tomatoes. We're women. I'm 66 years old and am working on an SE, with *FullWrite Pro* and other software. I taught myself on an Apple IIe and then got bored and moved to an SE. As for pastel computers, c'mon. How they look will never be as important as what they do for women or for men. True, one of the reasons I like the SE is that the design is a little less obtrusive in my apartment. But I bought it for what it DOES!

—Elizabeth Gips, Santa Cruz

Hey, everyone, I never said I agreed with Ivanhoe! As for my usage of "gals," which is hardly offensive, I'd like to say that I'll never use "gal" again when women of all ilks stop referring to males as: guys, boys, studs, hunks, bastards, wusses, wimps, creeps, chauvinist pigs and pretty boys. It's so common in Berkeley to rudely call men chauvinist pigs (pigs, mind you!) to their face (or commonly in print) that I'm sickened by this usage and the hypocrisy of these women and their constant complaining about men who, for example, use the word "girl" when referring to a 13-year-old! But I digress.

He Heard It!!

I think Ivanhoe is sincere in his briefing of designer, self-help computers. Just recently at both FRY's Electronics and at Datasource Computers I overheard ladies exclaim, "These laptops are nice, but I wish they came in more colors!" and "If only they were more colorful and pre-programmed with a diet plan!" I found both comments comical at the time, but it appears that A. Jesse Ivanhoe has placed a finger on the pulse of what may be the next wave of computers!

—David Wilkens, Santa Clara

Hate Mail

You must be lonely for hate mail and too lazy (or burned out) to come up with your own caustic drivel—that's the only explanation I can come up with for the appearance of the letter from Mr. Ivanhoe. What tripe! Who says women aren't interested in computers? If a woman's hobbies are shopping at Macy's and buying self-help books, then she's not going to need a computer. But the last time I checked, that was not what ALL women were doing.

—Susan Kersnar, California

Injury To Insult

Regarding the letter on females and computers, I think Mr. Ivanhoe could use a little self-help himself. The injury added to insult of offering a designer-colored little laptop pocketbook "with only words and no memory or fancy graphics." The injury is being regarded as a brain cell-deficient, subchildish species instead of the full humans we are.

If you want women's computer interest to magnify, be less nerdy and more humane. Be less ingroupish and esoteric and more humane. Be less technoid and obscure.

—Sharon Skolnick, Fairfax

"Where's your vision? Could it be clouded by that primordial slime whence you've surely crawled? . . ."

"We're not gals, girls, chicks or tomatoes. . ."

"You must be lonely for hate mail . . ."

"The injury is being regarded as a brain cell-deficient, subchildish species . . ."

"OK, Dvorak, here's what women want out of computing . . ."

What Women Want

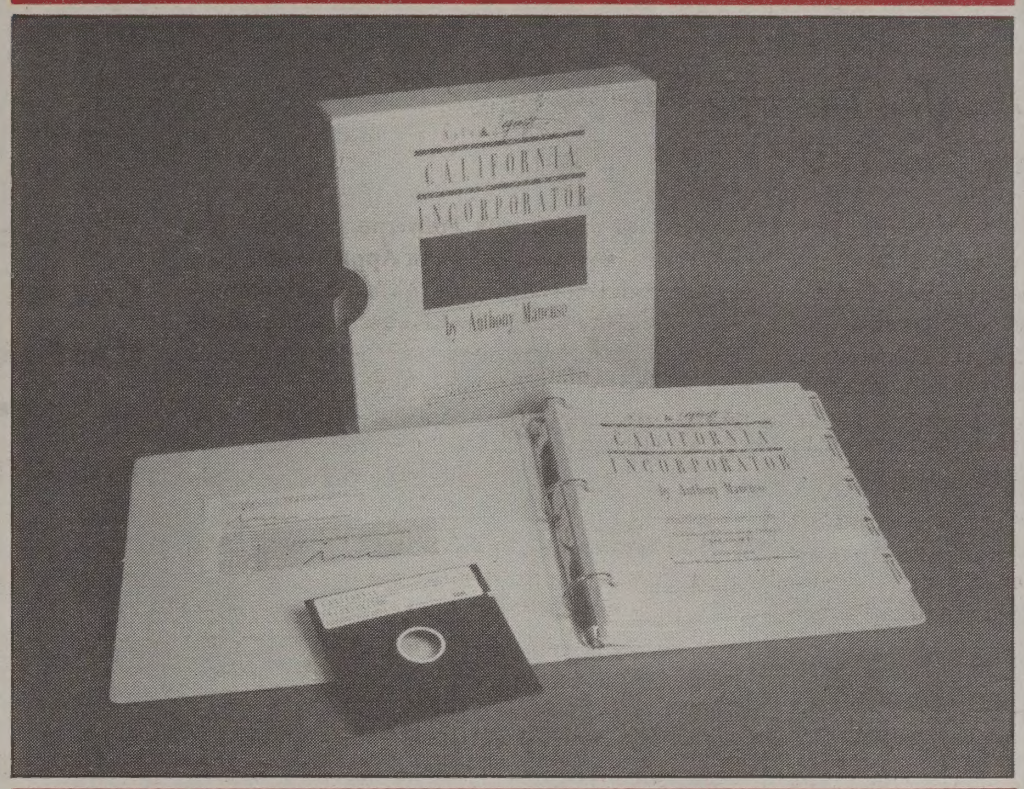
Ok, Dvorak, here's what women want out of computing: Elementary schools, junior highs and high schools that actively encourage girls to learn about computers, math and science instead of directing them away from these areas.

—Lisa Hirsch, Richmond

Next month: The next installment of the Search for the Feminine Computer. It's a fascinating letter from a Fremont woman that best answers Ivanhoe's tome.

CALIFORNIA INCORPORATOR

BY ANTHONY MANCUSO & LEGISOFT, INC.



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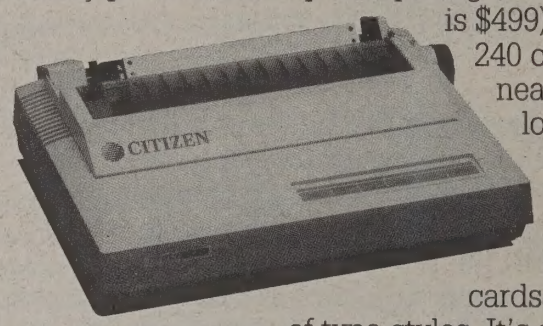

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